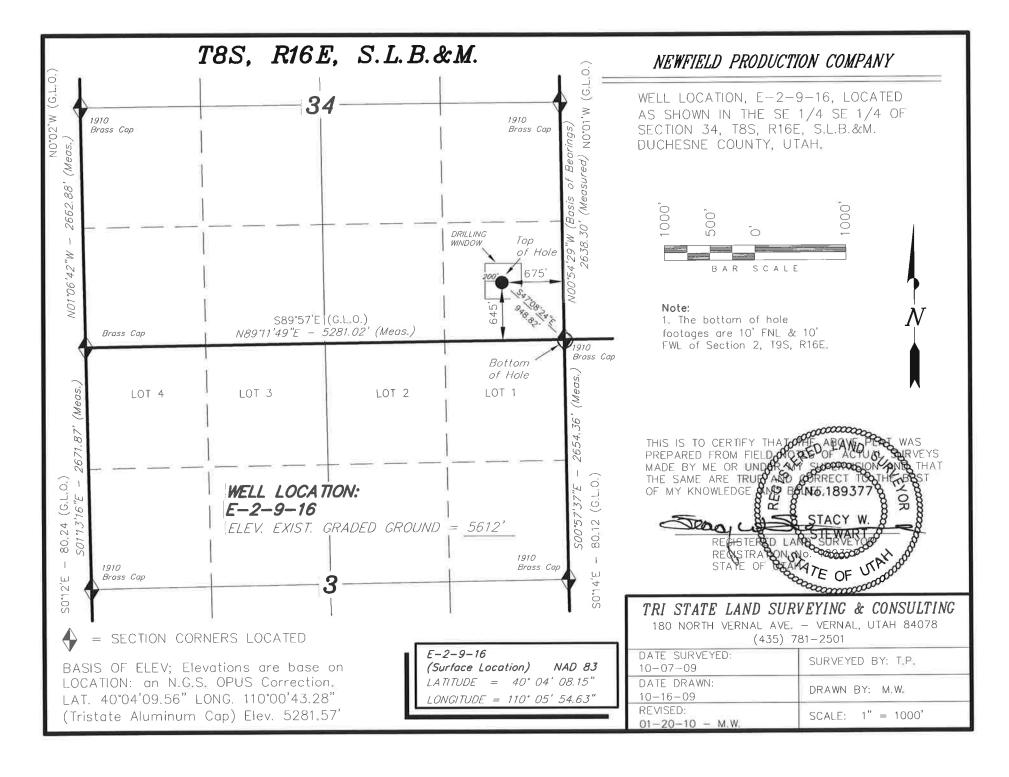
		ST DEPARTMENT DIVISION O	OF NA					FOR		
APPLI	CATION FOR P	ERMIT TO DRILL	L				1. WELL NAME and NUMBER Greater Monument Butte E-2-9-16			
2. TYPE OF WORK  DRILL NEW WELL REENTER P&A WELL DEEPEN WELL DEEPEN WELL							3. FIELD OR WILDO	CAT MONUMENT BUTTE		
4. TYPE OF WELL Oil We	ll Coalbed	Methane Well: NO					5. UNIT or COMMUI	NITIZATION AGRE	EMENT NAME	
6. NAME OF OPERATOR	WFIELD PRODUCT	ION COMPANY					7. OPERATOR PHOP	<b>NE</b> 435 646-4825		
8. ADDRESS OF OPERATOR	3 Box 3630 , Myt	on, UT, 84052					9. OPERATOR E-MA mc	IL rozier@newfield.com		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)		I1. MINERAL OWNE	IAN (	) STATE (	FEE (		12. SURFACE OWNI	ERSHIP DIAN ( STATE (	FEE (III)	
UTU-16535  13. NAME OF SURFACE OWNER (if box 12							14. SURFACE OWN			
15. ADDRESS OF SURFACE OWNER (if box	12 = 'fee')						16. SURFACE OWN	ER E-MAIL (if box 1	12 = 'fee')	
17. INDIAN ALLOTTEE OR TRIBE NAME		18. INTEND TO COM		E PRODUCT	ION FROM		19. SLANT			
(if box 12 = 'INDIAN')		c=>		ıling Applicat	ion) NO 🗓	9	VERTICAL DIR	RECTIONAL 📵 HO	ORIZONTAL (	
20. LOCATION OF WELL	FOOTAGES			R-QTR	SECTI	ON	TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE	645 FSL	675 FEL	9	SESE	34		8.0 S	16.0 E	S	
Top of Uppermost Producing Zone	215 FSL	SL 212 FEL SESE		SESE	34		8.0 S	16.0 E	S	
At Total Depth		10 FWL	NWNW 2			9.0 S 16.0 E		S		
21. COUNTY  DUCHESNE		22. DISTANCE TO N	1	0			23. NUMBER OF AC	RES IN DRILLING	UNIT	
		25. DISTANCE TO N Applied For Drilling		npleted)	AME POOL		26. PROPOSED DEP MD	<b>PTH</b> : 6446 TVD: 6446	;	
27. ELEVATION - GROUND LEVEL 5612	2	28. BOND NUMBER	WYB0	00493			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-7478			
		A	ТТАСН	MENTS						
VERIFY THE FOLLOWING	ARE ATTACHE	D IN ACCORDAN	CE WI	TH THE U	TAH OIL A	AND G	AS CONSERVATI	ON GENERAL RU	JLES	
WELL PLAT OR MAP PREPARED BY	LICENSED SURV	EYOR OR ENGINEER	R	COMPLETE DRILLING PLAN						
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGREE	MENT (IF FEE SURF	ACE)	FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER						
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY TOPO						AL MAP	•			
NAME Mandie Crozier		TITLE Regulatory	Tech			PHON	IE 435 646-4825			
SIGNATURE		<b>DATE</b> 03/12/2010				EMAI	<b>L</b> mcrozier@newfield.	com		
<b>API NUMBER ASSIGNED</b> 43013502850000		APPROVAL				B	acyill			
						Pe	ermit Manager			

API Well No: 43013502850000 Received: 3/12/2010

	Proposed Hole, Casing, and Cement									
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)						
Prod	7.875	5.5	0	6446						
Pipe	Grade	Length	Weight							
	Grade J-55 LT&C	6446	15.5			Г				

API Well No: 43013502850000 Received: 3/12/2010

	Proposed Hole, Casing, and Cement								
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)					
Surf	12.25	8.625	0	300					
Pipe	Grade	Length	Weight						
	Grade J-55 ST&C	300	24.0						





Project: USGS Myton SW (UT) Site: SECTION 34 T8S, R16E

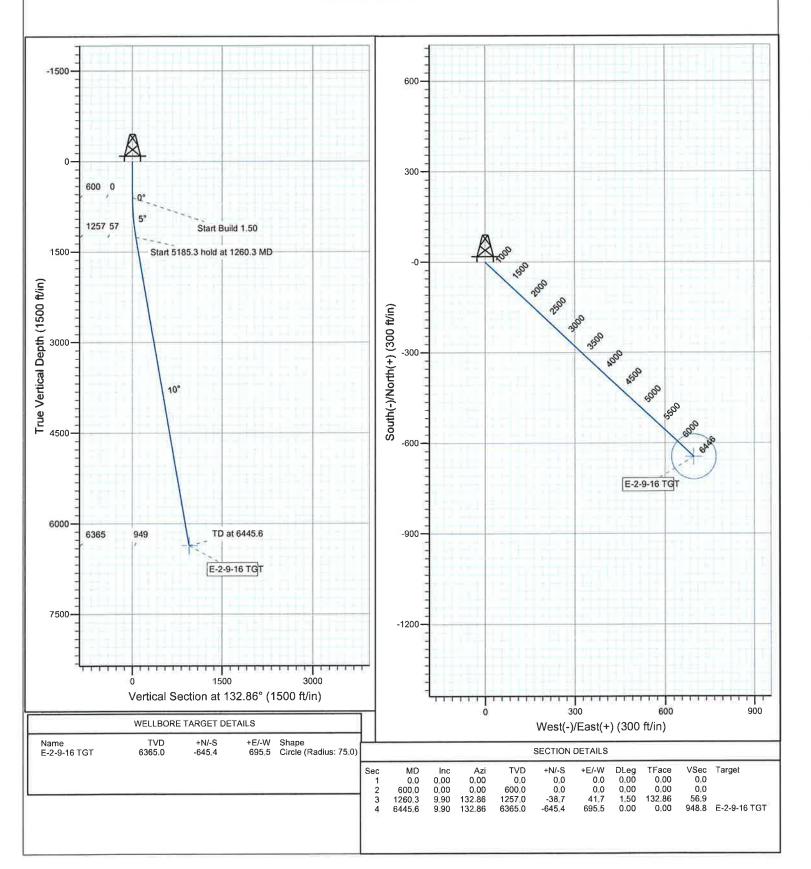
Well: E-2-9-16 Wellbore: Wellbore #1 Design: Design #1



Azimuths to True North Magnetic North: 11.51°

Magnetic Field Strength: 52458.3snT Dip Angle: 65.85° Date: 12/10/2009 Model: IGRF200510

KOP @ 600' DOGLEG RATE 1.5 DEG/100 TARGET RADIUS IS 75'





# **NEWFIELD EXPLORATION**

USGS Myton SW (UT) SECTION 34 T8S, R16E E-2-9-16

Wellbore #1

Plan: Design #1

# **Standard Planning Report**

10 December, 2009

# **NEWFIELD**

### **HATHAWAYBURNHAM**

Planning Report

Database: Company: Project:

EDM 2003.21 Single User Db NEWFIELD EXPLORATION USGS Myton SW (UT)

Site:

SECTION 34 T8S, R16E

Well: Wellbore: Design:

E-2-9-16 Wellbore #1 Design #1

Local Co-ordinate Reference:

**TVD Reference:** MD Reference:

**Survey Calculation Method:** 

North Reference:

Well E-2-9-16

WELL @ 5624.0ft (Original Well Elev) WELL @ 5624.0ft (Original Well Elev)

True

Minimum Curvature

**Project** 

USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA

Map System: Geo Datum:

US State Plane 1983

North American Datum 1983

Map Zone:

Utah Central Zone

System Datum:

Mean Sea Level

Using geodetic scale factor

Site

SECTION 34 T8S, R16E, SEC 34 T8S, R16E

Site Position:

Lat/Long

Northing: Easting:

7,199,000.00ft 2,031,000.00ft Latitude: Longitude:

40° 4' 29.106 N

**Position Uncertainty:** 

0.0 ft Slot Radius:

**Grid Convergence:** 

110° 6' 14.985 W

0.89°

Well

From:

E-2-9-16, SHL LAT: 40 04 08.15, LONG -110 05 54.63

**Well Position** 

+N/-S +E/-W -2,120.7 ft 1,582.3 ft

Northing: Easting:

12/10/2009

7.196.904.59 ft 2,032,615.22 ft Latitude: Longitude:

40° 4' 8.150 N 110° 5' 54.630 W

Position Uncertainty

0.0 ft

Wellhead Elevation:

5,624.0 ft

**Ground Level:** 

65.86

5,612.0 ft

Wellbore

Wellbore #1

**Magnetics** 

Sample Date **Model Name** IGRF200510

Declination (°) 11.51

Dip Angle (°)

Field Strength (nT)

52.458

Design

Audit Notes:

Version:

Design #1

Phase:

**PROTOTYPE** 

Tie On Depth:

0.0

**Vertical Section:** 

Depth From (TVD) (ft) 6,365.0

+N/-S (ft) 0.0

+E/-W (ft) 0.0

Direction (°) 132.86

**Plan Sections** Vertical Dogleg Build Turn Measured +E/-W +N/-S Rate Rate **TFO** Depth Rate Depth Inclination **Azimuth** (°/100ft) (ft) (ft) (°/100ft) (°/100ft) (°) Target (ft) (ft) (°) (°) 0.00 0.00 0.0 0.00 0.00 0.0 0.00 0.00 0.0 0.0 0.00 0.00 0.00 0.00 600.0 0.00 0.00 600.0 0.0 0.0 1.50 0.00 132.86 1.50 1.260.3 9.90 132.86 1,257.0 -38.7 41.7 0.00 0.00 E-2-9-16 TGT 0.00 0.00 695.5 6,445.6 9.90 132.86 6,365.0 -645.4



# **HATHAWAYBURNHAM**

**Planning Report** 

Database: Company: Project: Site:

Well:

EDM 2003.21 Single User Db NEWFIELD EXPLORATION USGS Myton SW (UT) **SECTION 34 T8S, R16E** 

E-2-9-16 Wellbore: Wellbore #1 Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well E-2-9-16

WELL @ 5624.0ft (Original Well Elev) WELL @ 5624.0ft (Original Well Elev)

True

Minimum Curvature

esign:	Design #1								
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	1.50	132.86	700.0	-0.9	1.0	1.3	1.50	1.50	0.00
800.0	3.00	132.86	799.9	-3.6	3.8	5.2	1.50	1.50	0.00
900.0	4.50	132.86	899.7	-8.0	8.6	11.8	1.50	1.50	0.00
1,000.0	6.00	132.86	999.3	-14.2	15.3	20.9	1.50	1.50	0.00
1,100.0	7.50	132.86	1,098.6	-22.2	24.0	32.7	1.50	1.50	0.00
1,200.0	9,00 9,90	132.86 132.86	1,197.5	-32.0	34.5	47.0	1.50	1.50	0.00
1,260.3	9,90		1,257.0	-38.7	41.7	56.9	1.50	1.50	0.00
1,300.0		132.86	1,296.1	-43.4	46.7	63.8	0.00	0.00	0.00
1,400.0	9.90	132.86	1,394.6	-55.1	59.3	81.0	0.00	0.00	0.00
1,500.0	9.90	132.86	1,493.1	-66.8	72.0	98.2	0.00	0.00	0.00
1,600.0	9,90	132.86	1,591.7	-78.5	84.6	115.4	0.00	0.00	0.00
1,700.0	9.90	132.86	1,690.2	-90.2	97.2	132.6	0.00	0.00	0.00
1,800.0	9.90	132.86	1,788.7	-101.9	109.8	149.8	0.00	0.00	0.00
1,900.0	9.90	132.86	1,887.2	-113.6	122.4	167.0	0.00	0.00	0.00
2,000.0	9.90	132.86	1,985.7	-125.3	135.0	184.2	0.00	0.00	0.00
2,100.0	9.90	132.86	2,084.2	-137.0	147.6	201.4	0.00	0.00	0.00
2,200.0	9.90	132.86	2,182.7	-148.7	160.2	218.6	0.00	0.00	0.00
2,300.0	9.90	132.86	2,281.2	-160.4	172.8	235.8	0.00	0.00	0.00
2,400.0	9.90	132.86	2,379.7	-172,1	185.4	253.0	0.00	0.00	0.00
2,500.0	9.90	132.86	2,478.2	-183.8	198.0	270.2	0.00	0.00	0.00
2,600.0	9.90	132.86	2,576.7	-195.5	210.6	287.4	0.00	0.00	0.00
2,700.0	9.90	132.86	2,675.3	-207.2	223.3	304.6	0.00	0.00	0.00
2,800.0	9.90	132.86	2,773.8	-218.9	235.9	321.8	0.00	0.00	0.00
		132.86							
2,900.0 3,000.0	9.90 9.90	132.86	2,872.3 2,970.8	-230.6 -242.3	248.5 261.1	339.0 356.2	0.00 0.00	0.00 0.00	0.00 0.00
3,100.0	9.90	132.86	3,069.3	-242.3 -254.0	273.7	373.4	0.00	0.00	0.00
3,200.0	9.90	132.86	3,167.8	-265.7	286.3	390.6	0.00	0.00	0.00
3,300.0	9.90	132.86	3,266.3	-277.4	298.9	407.8	0.00	0.00	0.00
3,400.0	9.90	132.86	3,364.8	-289.1	311.5	425.0	0.00	0.00	0.00
3,500.0	9.90	132.86	3,463.3	-300.8	324.1	442.2	0.00	0.00	0.00
3,600.0 3,700.0	9.90	132.86 132.86	3,561.8	-312.5	336.7	459.4	0.00	0.00	0.00
3,800.0	9.90 9.90	132.86	3,660.4 3,758.9	-324.2 -335.9	349.3 361.9	476.6 493.8	0.00 0.00	0.00 0.00	0.00 0.00
3,900.0	9.90	132.86	3,857.4	-347.6	374.6	511.0	0.00	0.00	0.00
4,000.0	9.90	132.86	3,955.9	-359.3	387.2	528.2	0.00	0.00	0.00
4,100.0	9.90	132.86	4,054.4	-371.0	399.8	545.4	0.00	0.00	0.00
4,200.0	9.90	132.86	4,152.9	-382.7	412.4	562.6	0.00	0.00	0.00
4,300.0	9.90	132.86	4,251.4	-394.4	425.0	579.8	0.00	0.00	0.00
4,400.0	9.90	132.86	4,349.9	-406.1	437.6	597.0	0.00	0.00	0.00
4,500.0	9.90	132.86	4,448.4	-417.8	450.2	614.2	0.00	0.00	0.00
4,600.0	9.90	132.86	4,546.9	-429.5	462.8	631.4	0.00	0.00	0.00
4,700.0	9.90	132.86	4,645.5	-441.2	475.4	648.6	0.00	0.00	0.00
4,800.0	9.90	132.86	4,744.0	-452.9	488.0	665.8	0.00	0.00	0.00
4,900.0	9.90	132.86	4,842.5	-464.6	500.6	683.0	0.00	0.00	0.00
5,000.0	9.90	132.86	4,941.0	-476.3	513.2	700.2	0.00	0.00	0.00
5,100.0	9.90	132.86	5,039.5	-488.0	525.8	717.4	0.00	0.00	0.00
5,200.0	9.90	132.86	5,138.0	-499.7	538.5	734.6	0.00	0.00	0.00



# **HATHAWAYBURNHAM**

Planning Report

Database: Company: Project:

Site:

Well:

EDM 2003.21 Single User Db NEWFIELD EXPLORATION USGS Myton SW (UT) SECTION 34 T8S, R16E

E-2-9-16 Wellbore: Wellbore #1 Design: Design #1

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference:

**Survey Calculation Method:** 

Well E-2-9-16

WELL @ 5624.0ft (Original Well Elev) WELL @ 5624.0ft (Original Well Elev)

True

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.0	9.90	132.86	5,236.5	-511.4	551.1	751.8	0.00	0.00	0.00
5,400.0	9.90	132.86	5,335.0	-523.1	563.7	769.0	0.00	0.00	0.00
5,500.0	9.90	132.86	5,433.5	-534.8	576.3	786.2	0.00	0.00	0.00
5,600.0	9.90	132.86	5,532.0	-546.5	588.9	803.4	0.00	0.00	0.00
5,700.0	9.90	132.86	5,630.5	-558.2	601.5	820.6	0.00	0.00	0.00
5,800.0	9.90	132.86	5,729.1	-569.9	614.1	837.8	0.00	0.00	0.00
5,900.0	9.90	132.86	5,827.6	-581.6	626.7	855.0	0.00	0.00	0.00
6,000.0	9.90	132.86	5,926.1	-593.3	639.3	872.2	0.00	0.00	0.00
6,100.0	9.90	132.86	6,024.6	-605.0	651.9	889.4	0.00	0.00	0.00
6,200.0	9.90	132.86	6,123.1	-616.7	664.5	906.6	0.00	0.00	0.00
6,300.0	9.90	132.86	6,221.6	-628.4	677.1	923.8	0.00	0.00	0.00
6,400.0	9.90	132.86	6,320.1	-640.1	689.8	941.0	0.00	0.00	0.00
6,445.6	9.90	132.86	6,365.0	-645.4	695.5	948.8	0.00	0.00	0.00

Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
E-2-9-16 TGT - plan hits target - Circle (radius 75	0.00	0.00	6,365.0	-645.4	695.5	7,196,270.23	2,033,320.68	40° 4' 1.772 N	110° 5' 45.684 W

## NEWFIELD PRODUCTION COMPANY GREATER MONUMENT BUTTE E-2-9-16 AT SURFACE: SE/SE SECTION 34, T8S, R16E DUCHESNE COUNTY, UTAH

#### TEN POINT DRILLING PROGRAM

#### 1. **GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

#### 2. **ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Uinta 0 - 1705Green River 1705 Wasatch 6446'

#### 3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Green River Formation 1705' - 6446' - Oil

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 350'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form Report of Water Encountered is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

Date Sampled Location & Sampled Interval Temperature Flow Rate Hardness pН

Water Classification (State of Utah) Dissolved Calcium (Ca) (mg/l) Dissolved Sodium (Na) (mg/l) Dissolved Iron (Fe) (ug/l) Dissolved Magnesium (Mg) (mg/l) Dissolved Carbonate (CO<sub>3</sub>) (mg/l) Dissolved Bicarbonate (NaHCO<sub>3</sub>) (mg/l) Dissolved Chloride (Cl) (mg/l) Dissolved Total Solids (TDS) (mg/l) Dissolved Sulfate (SO<sub>4</sub>) (mg/l)

Ten Point Well Program & Thirteen Point Well Program Page 2 of 4

#### 4. PROPOSED CASING PROGRAM

a. Casing Design: Greater Monument Butte E-2-9-16

Size	h	Interval Meight Crade Counting		Weight Grade		Weight Grade Cour		9 =	Design Factors		
5120	Тор	Bottom	vveigni	Grade	Coupling	Burst	Collapse	Tension			
Surface casing	0.0	200	24.0	STC	2,950	1,370	244,000				
8-5/8"	10	300'	24.0	24.0 J-55		17.53	14.35	33.89			
Prod casing	01	0.4401	45.5		1.70	4,810	4,040	217,000			
5-1/2"	0,:	6,446'	15.5	J-55	LTC	2.35	1.97	2.17			

#### Assumptions:

- 1) Surface casing max anticipated surface press (MASP) = Frac gradient gas gradient
- 2) Prod casing MASP (production mode) = Pore pressure gas gradient
- 3) All collapse calculations assume fully evacuated casing w/ gas gradient
- 4) All tension calculations assume air weight

Frac gradient at surface casing shoe = 13.0 ppg
Pore pressure at surface casing shoe = 8.33 ppg
Pore pressure at prod casing shoe = 8.33 ppg
Gas gradient = 0.115 psi/ft

All casing shall be new or, if used, inspected and tested. Used casing shall meet or exceed API standards for new casing.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

b. Cementing Design: Greater Monument Butte E-2-9-16

Job	Fill	Description	Sacks ft <sup>3</sup>	OH Excess*	Weight (ppg)	Yield (ft³/sk)	
O. of a constant	2001	01 0/ 20/ 0-01	138	200/	15.0	1.17	
Surface casing	300'	Class G w/ 2% CaCl	161	30%	15.8	L 17	
Prod casing	4,446'	Prem Lite II w/ 10% gel + 3%	307	30%	11.0	3.26	
Lead	4,440	KCI 1001		3070	11.0	3.20	
Prod casing	2,000'	50/50 Poz w/ 2% gel + 3%	363	30%	14.3	1.24	
Tail	2,000	KCI	451	30 /0	14.5	1.24	

<sup>\*</sup>Actual volume pumped will be 15% over the caliper log

- Compressive strength of lead cement: 1800 psi @ 24 hours, 2250 psi @ 72 hours
- Compressive strength of tail cement: 2500 psi @ 24 hours

Hole Sizes: A 12-1/4" hole will be drilled for the 8-5/8" surface casing. A 7-7/8" hole will be drilled for the 5-1/2" production casing.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

### 5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

The operator's minimum specifications for pressure control equipment are as follows:

Ten Point Well Program & Thirteen Point Well Program Page 3 of 4

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be check daily.

Refer to Exhibit C for a diagram of BOP equipment that will be used on this well.

#### 6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

From surface to  $\pm 350$  feet will be drilled with an air/mist system. The air rig is equipped with a 6 ½" blooie line that is straight run and securely anchored. The blooie line is used with a discharge less than 100 ft from the wellbore in order to minimize the well pad size. The blooie line is not equipped with an automatic igniter or continuous pilot light and the compressor is located less than 100 ft from the well bore due to the low possibility of combustion with the air dust mixture. The trailer mounted compressor (capacity of 2000 CFM) has a safety shut-off valve which is located 15 feet from the air rig. A truck with 70 bbls of water is on stand by to be used as kill fluid, if necessary. From about  $\pm 350$  feet to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCl substitute additive. This additive will be identified in the APD and reviewed to determine if the reserve pit shall be lined. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

Newfield Production will visually monitor pit levels and flow from the well during drilling operations.

### 7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

#### 8. TESTING, LOGGING AND CORING PROGRAMS:

The logging program will consist of a Dual Induction, Gamma Ray and Caliper log from TD to base of surface casing @ 300' +/-, and a Compensated Neutron-Formation Density Log from TD to 3500' +-. A cement bond log will be run from PBTD to cement top. No drill stem testing or coring is planned for this well.

### 9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

No abnormal temperatures or pressures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated

# 'APIWellNo:43013502850000'

Ten Point Well Program & Thirteen Point Well Program Page 4 of 4

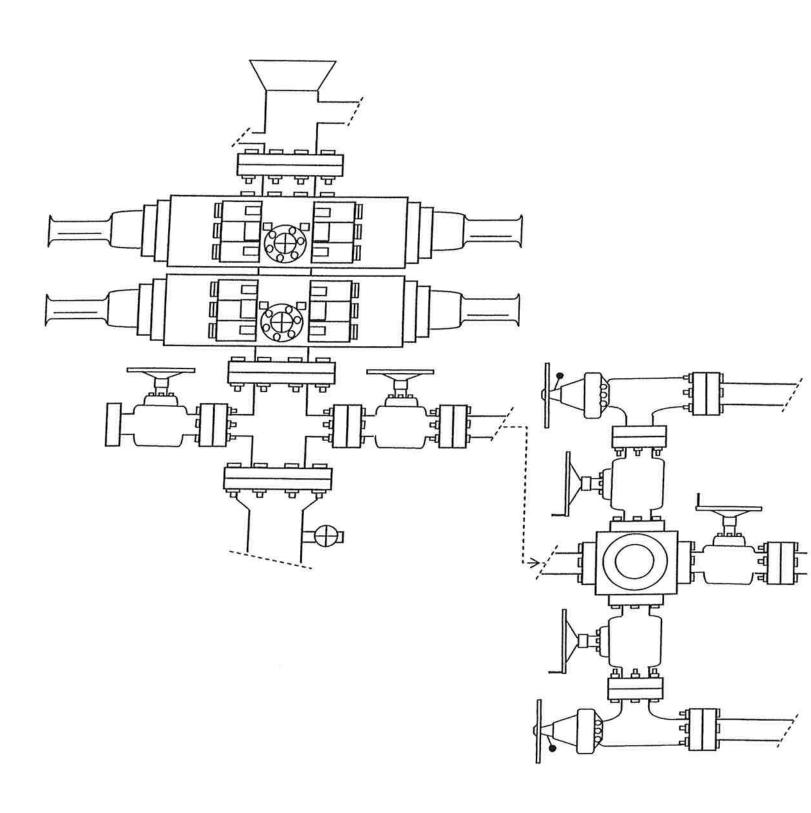
bottomhole pressure will approximately equal total depth in feet multiplied by a 0.433 psi/foot gradient.

# 10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

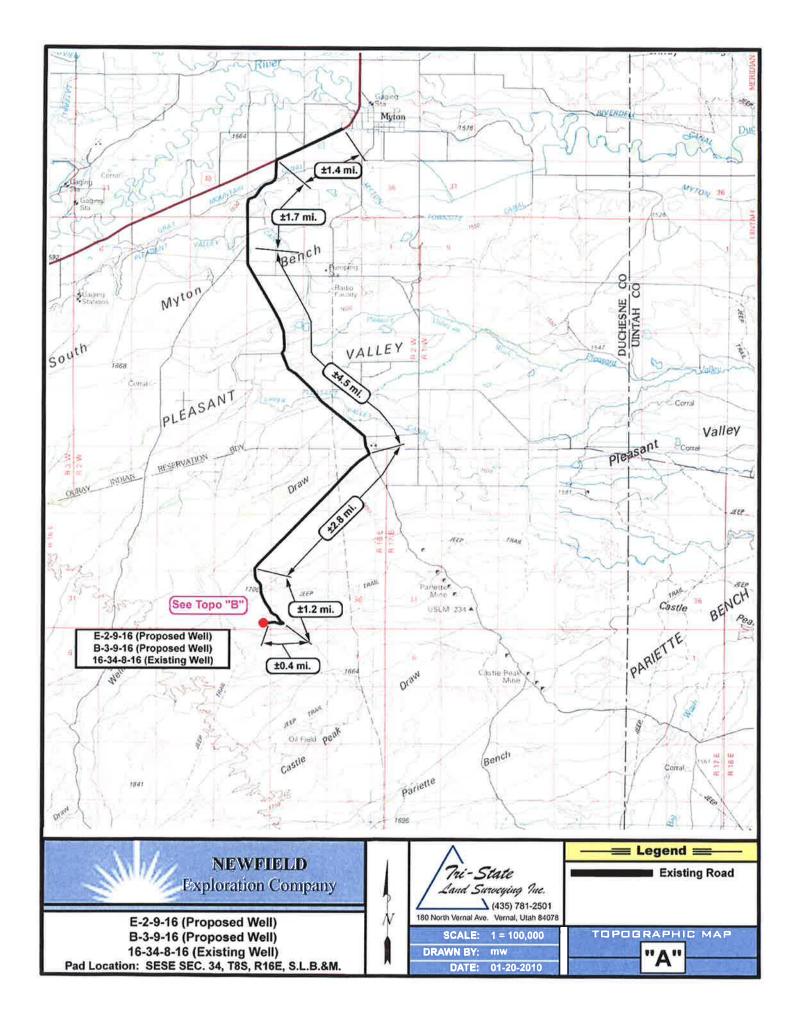
It is anticipated that the drilling operations will commence the third quarter of 2010, and take approximately seven (7) days from spud to rig release.

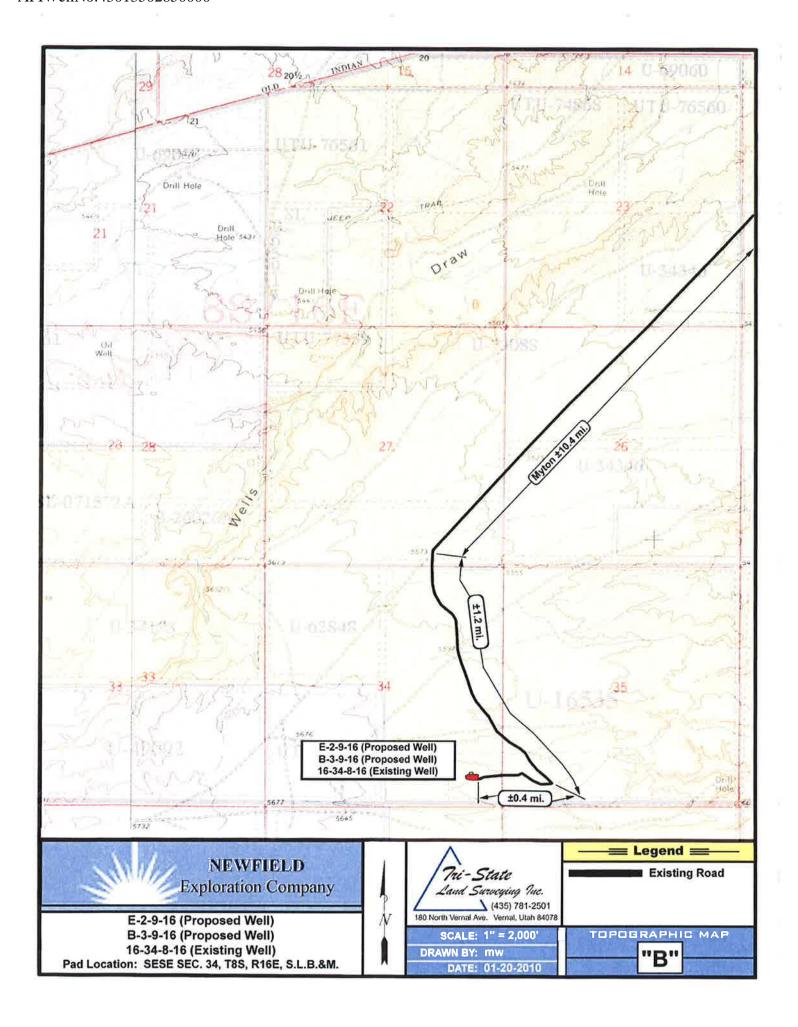
# 2-M SYSTEM

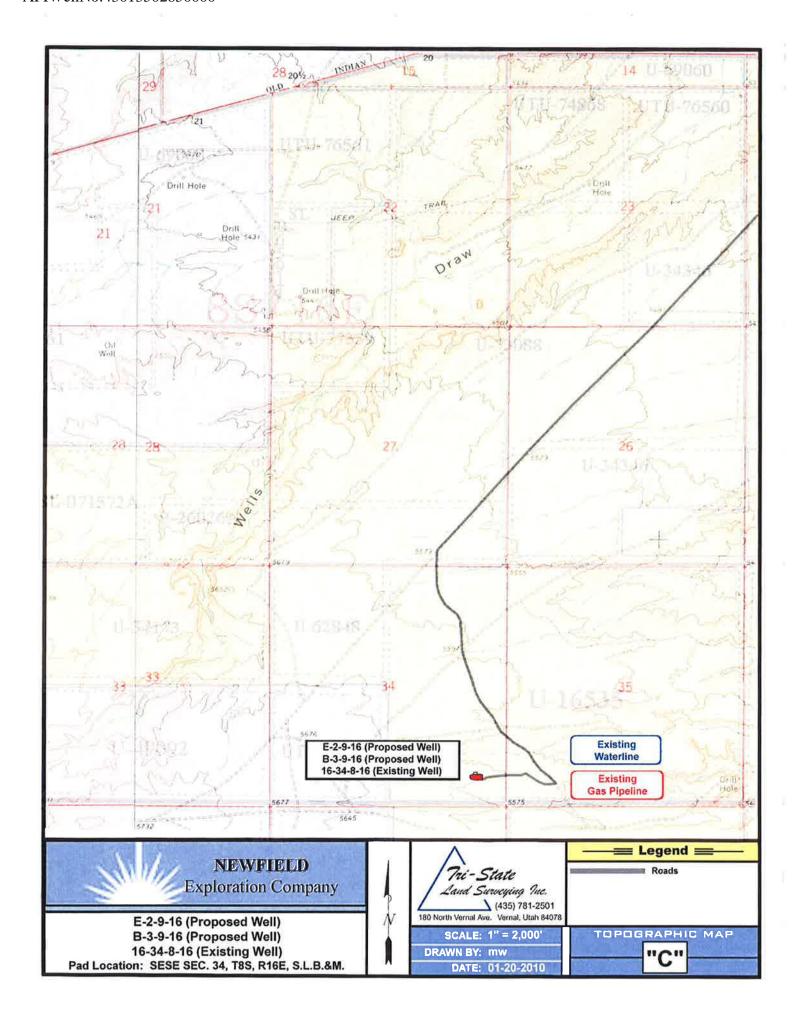
Blowout Prevention Equipment Systems

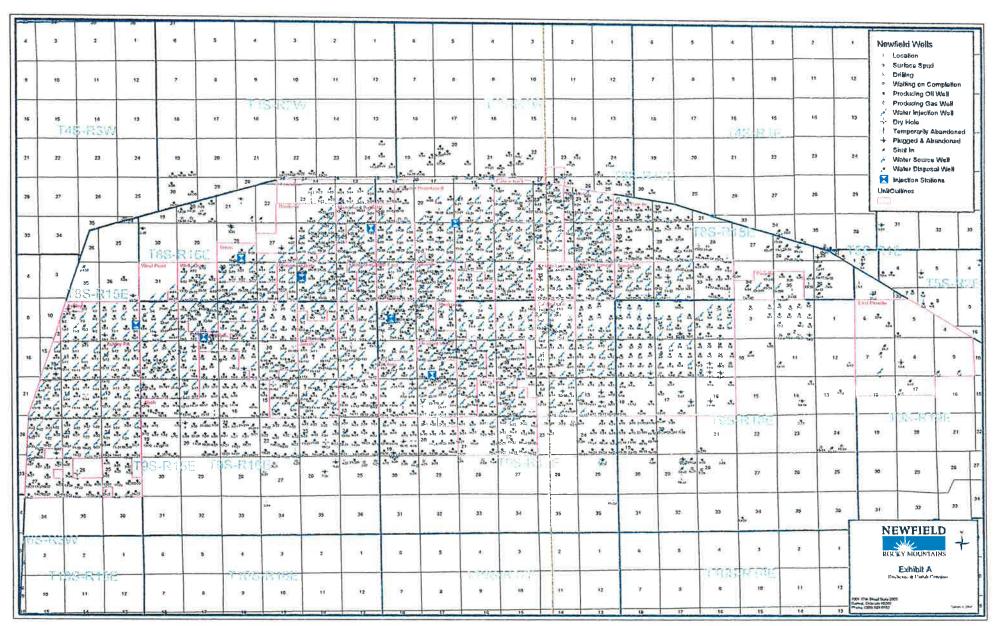


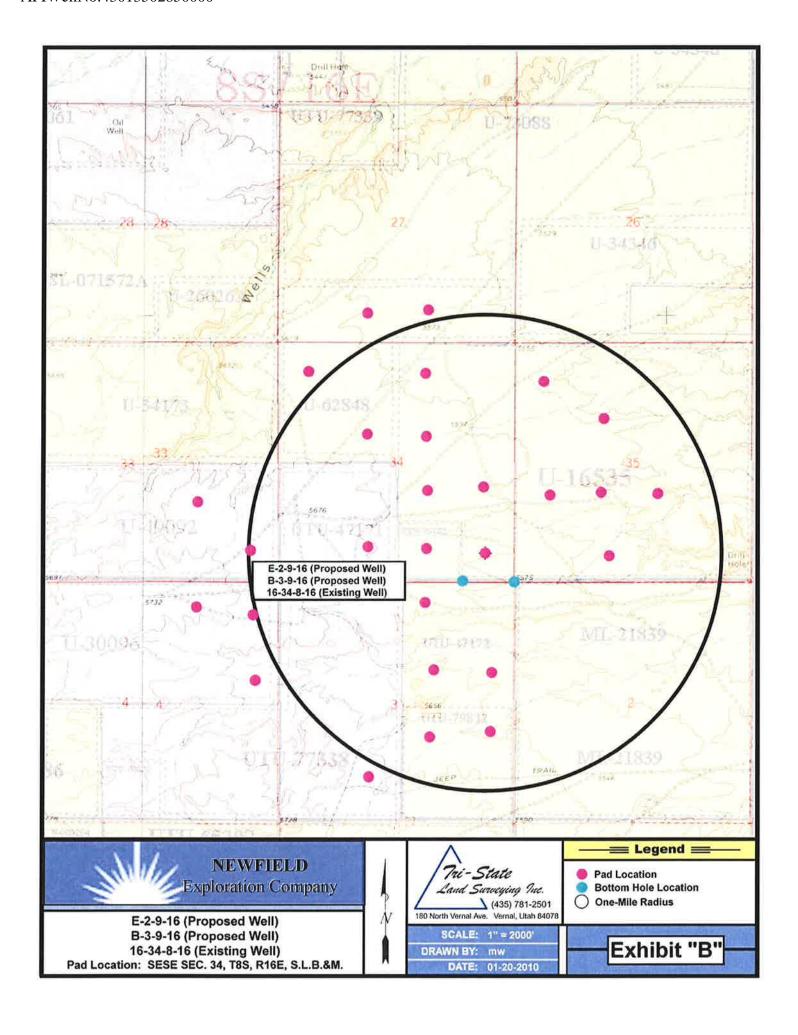
**EXHIBIT C** 











# NEWFIELD PRODUCTION COMPANY GREATER MONUMENT BUTTE E-2-9-16 AT SURFACE: SE/SE SECTION 34, T8S, R16E DUCHESNE COUNTY, UTAH

### ONSHORE ORDER NO. 1

### **MULTI-POINT SURFACE USE & OPERATIONS PLAN**

#### 1. EXISTING ROADS

See attached Topographic Map "A"

To reach Newfield Production Company well location site Greater Monument Butte E-2-9-16 located in the SE 1/4 SE 1/4 Section 34, T8S, R16E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.4 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southeasterly -6.2 miles  $\pm$  to it's junction with an existing dirt road to the southwest; proceed southwesterly -2.8 miles  $\pm$  to it's junction with an existing road to the southeast; proceed southeasterly -1.2 miles  $\pm$  to it's junction with an existing road to the west; proceed easterly -0.4 miles  $\pm$  to it's junction with the beginning of the access road to the existing 16-34-8-16 well location.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal. Any necessary fill material for repair will be purchase and hauled from private sources.

#### 2. PLANNED ACCESS ROAD

There is no proposed access road for this location. The proposed well will be drilled off of the existing 16-34-8-16 well pad. See attached **Topographic Map "B"**.

There will be **no** culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

#### 3. <u>LOCATION OF EXISTING WELLS</u>

Refer to Exhibit "B".

### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

There are no existing facilities that will be used by this well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain at minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to State specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation.

### 5. LOCATION AND TYPE OF WATER SUPPLY

Newfield Production will transport water by truck from nearest water source as determined by a Newfield representative for the purpose of drilling the above mentioned well. The available water sources are as follows:

Johnson Water District Water Right: 43-7478

Neil Moon Pond

Water Right: 43-11787

Maurice Harvey Pond Water Right: 47-1358

Newfield Collector Well

Water Right: 41-3530 (A30414DV, contracted with the Duchesne County Conservancy District).

Please refer to the Monument Butte Field SOP. See Exhibit "A".

#### 6. SOURCE OF CONSTRUCTION MATERIALS

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

### 7. METHODS FOR HANDLING WASTE DISPOSAL

A small reserve pit (90' x 40' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the processed drill cutting (wet sand, shale & rock) removed from the wellbore. Any drilling fluids, which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed. All drilling fluids will be fresh water based, typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be required in the reserve pit. However, if upon constructing the pit there is insufficient fine clay and silt present, a liner will be used for the purpose of reducing water loss through percolation.

Newfield requests approval that a flare pit not be constructed or utilized on this location.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), State of Utah approved surface disposal facilities, or Federally approved surface disposal facilities.

#### 8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

# 9. WELL SITE LAYOUT

See attached Location Layout Sheet.

#### **Fencing Requirements**

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Existing fences to be crossed by the access road will be braced and tied off before cutting so as to prevent slacking in the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and upon completion of construction the fence shall be repaired to BLM specifications.

#### 10. PLANS FOR RESTORATION OF SURFACE:

#### a) Producing Location

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

#### b) Dry Hole Abandoned Location

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

#### 11. SURFACE OWNERSHIP – Bureau of Land Management.

#### 12. OTHER ADDITIONAL INFORMATION

Newfield Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Newfield is to immediately stop work that might further disturb such materials and contact the Authorized Officer.

- a) Newfield Production will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. On State administered land it is required that a Pesticide Use Proposal shall be submitted and given approval prior to the application of herbicides or other possible hazardous chemicals.
- b) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

The Archaeological Resource Survey and Paleontological Resource Survey for this area have been ordered and will be forthcoming.

### **Additional Surface Stipulations**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

#### **Hazardous Material Declaration**

Newfield Production Company guarantees that during the drilling and completion of the Greater Monument Butte E-2-9-16, Newfield will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Newfield also guarantees that during the drilling and completion of the Greater Monument Butte E-2-9-16, Newfield will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Newfield Production Company or a contractor employed by Newfield Production shall contact the State office at (801) 722-3417, 48 hours prior to construction activities.

The State office shall be notified upon site completion prior to moving on the drilling rig.

# 13. LESSEE'S OR OPERATOR'S REPRENSENTATIVE AND CERTIFICATION:

Representative

# 'APIWellNo:43013502850000'

Name:

Tim Eaton

Address:

**Newfield Production Company** 

Route 3, Box 3630

Myton, UT 84052

Telephone:

(435) 646-3721

### Certification

Please be advised that Newfield Production Company is considered to be the operator of well #E-2-9-16, Duchesne County, Utah and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by, Federal Bond #WYB000493.

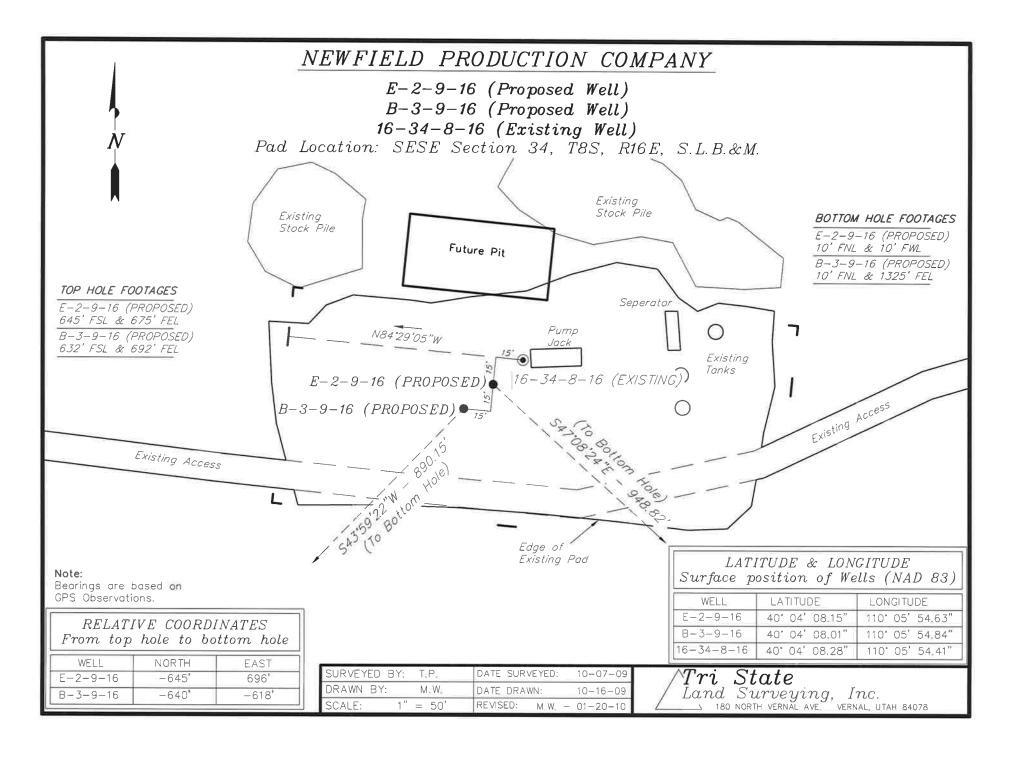
I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

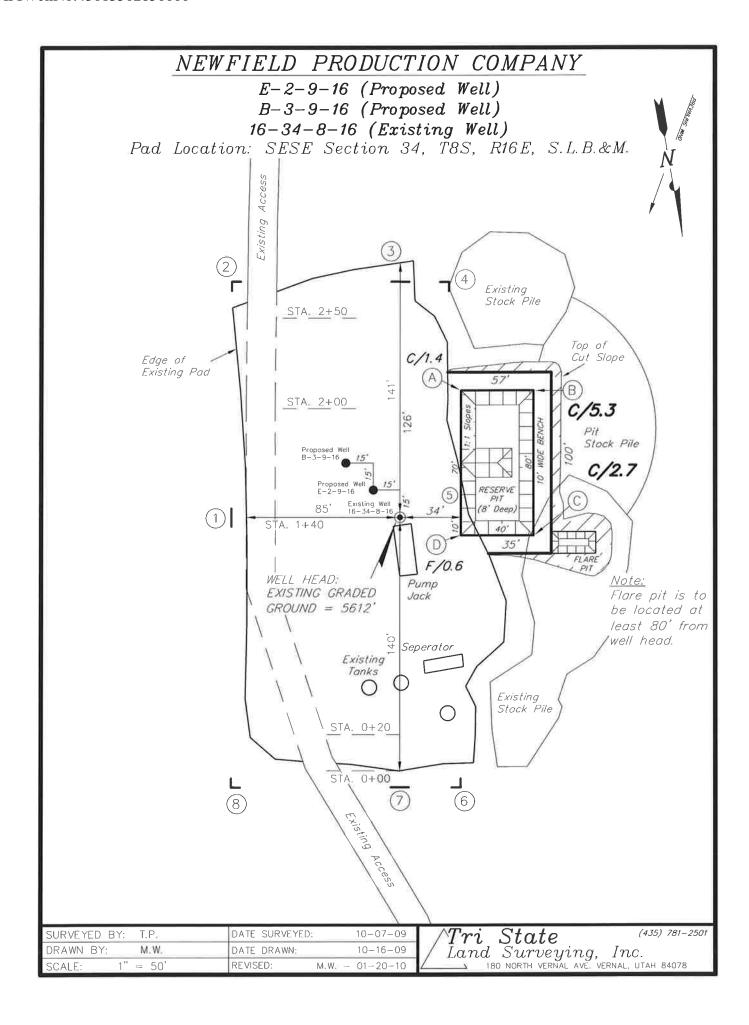
3/11/10

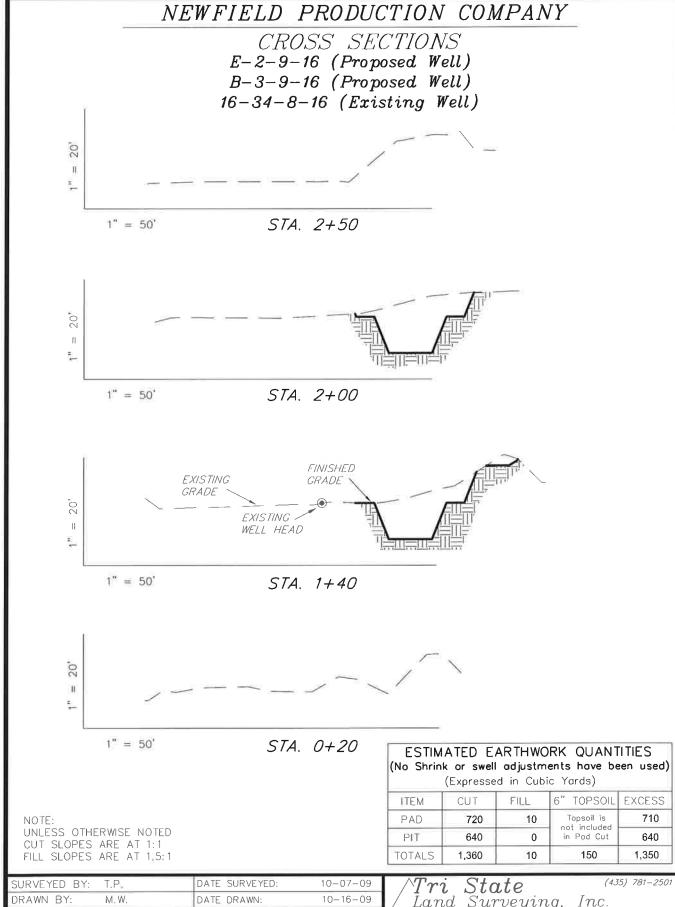
Date

Mandie Crozier

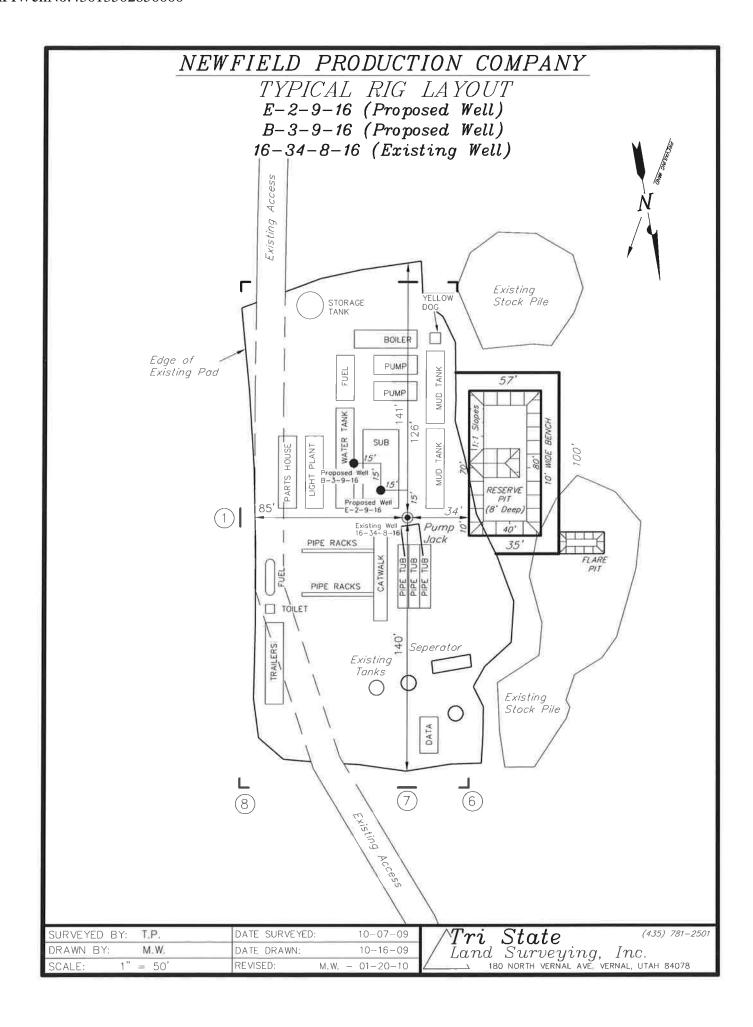
Regulatory Specialist Newfield Production Company







SURVEYED BY: T.P.	DATE SURVEYED:	10-07-09	$\wedge Tri$ $State$ (4.35) 781–250
DRAWN BY: M.W.	DATE DRAWN:	10-16-09	/ Land Surveying, Inc.
SCALE: $1" = 50'$	REVISED: M.W	01-20-10	



# **Newfield Production Company Proposed Site Facility Diagram**

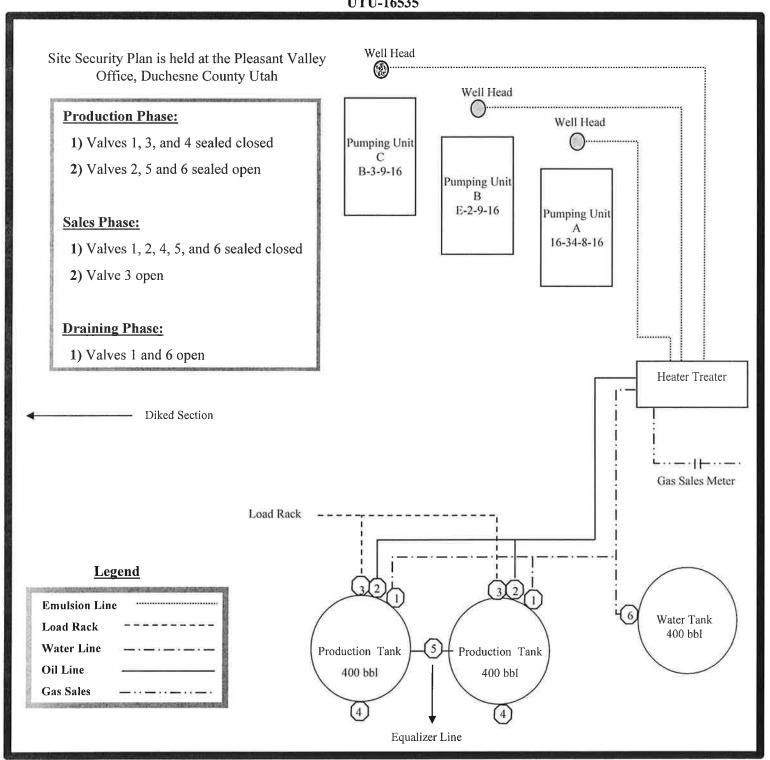
**Greater Monument Butte E-2-9-16** 

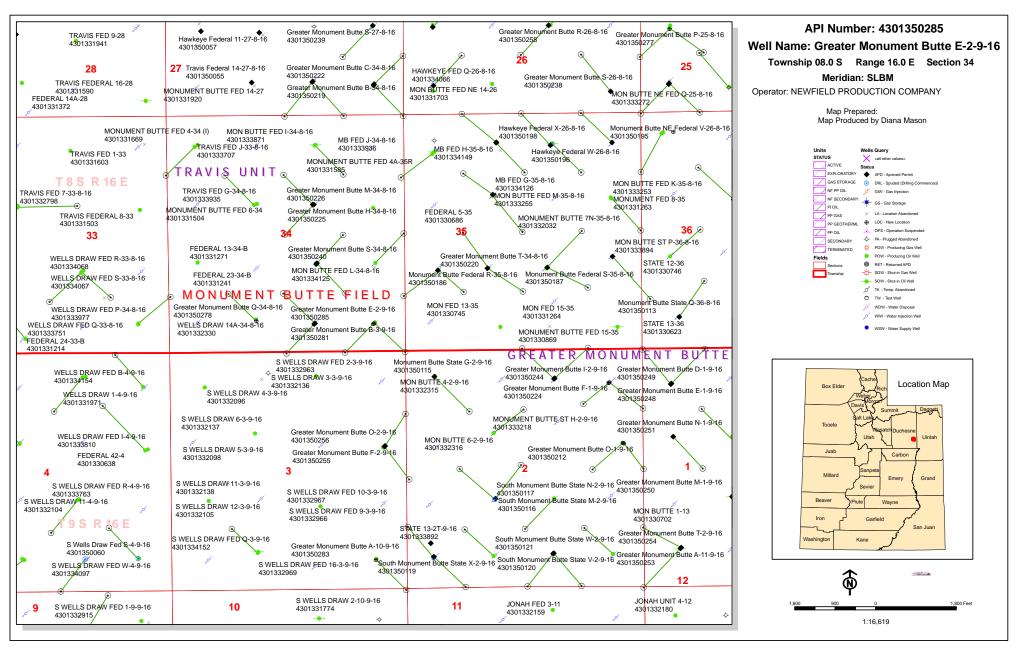
From the 16-34-8-16 Location

**SE/SE Sec. 34, T8S, R16E** 

**Duchesne County, Utah** 

UTU-16535







March 12, 2010

State of Utah, Division of Oil, Gas and Mining ATTN: Diana Mason P.O. Box 145801 Salt Lake City, UT 84114-5801

RE: Directional Drilling Applications

Dear Ms. Mason,

Please find enclosed, each under separate cover, nine (9) applications for directional drilling in correlation with Applications for Permit to Drill previously filed with your office.

Should you have any questions or require further information, please contact the undersigned at 303-383-4197 or by email at sgillespie@newfield.com. Thank you for your assistance and consideration regarding this matter.

Sincerely,

Shane Gillespie Land Associate

Newfield Production Company

enclosures



DIV. OF OIL, GAS & MINING



March 12, 2010

2483

State of Utah, Division of Oil, Gas and Mining ATTN: Diana Mason P.O. Box 145801 Salt Lake City, UT 84114-5801

RE: Directional Drilling

**Greater Monument Butte E-2-9-16**Greater Monument Butte (Green River) Unit

Surface Hole: T8S-R16E Section 34: SESE (UTU-16535)

645' FSL 675' FEL

At Target: T9S-R16E Section 2: NWNW (ML-21839)

10' FNL 10' FWL

Duchesne County, Utah

Dear Ms. Mason;

Pursuant to the filing by Newfield Production Company (NPC) of an Application for Permit to Drill the above referenced well dated 3/11/10, a copy of which is attached, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of our intention to directionally drill this well.

The surface hole and target locations of this well are both within the boundaries of the Greater Monument Butte Unit (UTU-87538X), of which Newfield certifies that it is the operator. Further, Newfield Certifies that all lands within 460 feet of the entire directional well bore are within the Greater Monument Butte Unit.

NPC is permitting this well as a directional well in order to mitigate surface disturbance by utilizing preexiting roads and pipelines.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please contact the undersigned at 303-383-4197 or by email at sgillespie@newfield.com. Your consideration in this matter is greatly appreciated.

Sincerely, Newfield Production Company

Shane Gillespie Land Associate

MAR 1 6 2010

DIV. OF OIL, GAS & MINING

From: Diana Mason To: Mandie Crozier CC: Shane Gillespie

Subject: RE: RE: Directional and exception location letters

I'll put this email in the well file for future reference. If this happens again, will you make note of it so I'll know right off hand.

Thank you, Diana

>>> "Mandie Crozier" < mcrozier@newfield.com> 3/16/2010 1:15 PM >>> The proposed BH location is 10' into Lease ML-21839. The BLM has asked us to permit these directional APD's in the Lease that is first penetrated for production. Since no production will come from the proposed BH lease, this well will be considered as producing out of Lease UTU-16535. I believe Ryan Angus and Dustin Doucet have discussed these scenarios.

Let me know if you have any other questions.

Mandie Crozier **Newfield Production** (435) 646-4825 ----Original Message----

From: Diana Mason [mailto:dianawhitney@utah.gov]

Sent: Tuesday, March 16, 2010 11:23 AM

To: Mandie Crozier

Subject: Fwd: RE: Directional and exception location letters

Hi Mandie,

Will you double check on the BHL lease number for the Greater Monument Butte E-2-9-16?

Thank you, Diana

>>> "Shane Gillespie" <<u>sqillespie@newfield.com</u>> 3/16/2010 11:02 AM >>> Hi Diana,

I'm showing that if the surface location is in T8S-R16E Sec. 34: SESE (UTU-16535), and we drill in a southeasterly direction to a bottom hole in the NWNW of T9S-R16E Sec. 2: NWNW we'll be in lease ML-21839, Right?

Also, sending the letters by email is fine. Do you want each letter in a separate PDF?

Thanks,

Shane Gillespie

'APIWellNo:43013502850000'

Land Associate Newfield Rocky Mountains sgillespie@newfield.com 303.383.4197

----Original Message----

From: Diana Mason [mailto:dianawhitney@utah.gov]

Sent: Tuesday, March 16, 2010 10:34 AM

To: Shane Gillespie

Subject: Directional and exception location letters

Hi Shane,

On the Greater Monument Butte E-2-9-16 BHL lease you have it being ML-21839 but when I make my map, Im showing it's Federal (there is no lease number listed on the APD). Will you double check the lease number?

Also, just as an FYI: Will you send letters in through email instead of the mail? Only because we are trying to eliminate all paper and I just upload it to the well file.

Thank you, Diana

# **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

March 22, 2010

#### Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Greater Monument

Butte Unit, Duchesne and Uintah Counties,

Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

API# WELL NAME LOCATION

(Proposed PZ GREEN RIVER) 43-013-50276 GMBU R-24-8-16 Sec 24 T08S R16E 0644 FSL 1993 FEL BHL Sec 24 T08S R16E 1320 FSL 2640 FEL 43-013-50277 GMBU P-25-8-16 Sec 25 T08S R16E 1858 FSL 0670 FWL BHL Sec 25 T08S R16E 1245 FSL 0000 FWL 43-013-50278 GMBU 0-34-8-16 Sec 34 T08S R16E 0713 FSL 1968 FWL BHL Sec 34 T08S R16E 1320 FSL 1358 FWL 43-013-50279 GMBU S-11-9-16 Sec 11 T09S R16E 1992 FSL 2015 FEL BHL Sec 11 T09S R16E 1330 FSL 1370 FEL 43-013-50280 GMBU A-1-9-16 Sec 06 T09S R17E 1100 FNL 0979 FWL BHL Sec 01 T09S R16E 0038 FNL 0075 FEL 43-013-50281 GMBU B-3-9-16 Sec 34 T08S R16E 0632 FSL 0692 FEL BHL Sec 03 T09S R16E 0010 FNL 1325 FEL 43-013-50282 GMBU A-25-8-16 Sec 19 T08S R17E 0742 FSL 0803 FWL BHL Sec 25 T08S R16E 0010 FNL 0010 FEL 43-013-50283 GMBU A-10-9-16 Sec 03 T09S R16E 0666 FSL 0675 FEL

BHL Sec 10 T09S R16E 0010 FNL 0010 FEL

Page 2

API# WELL NAME LOCATION

(Proposed PZ GREEN RIVER)

43-013-50284 GMBU G-25-8-16 Sec 25 T08S R16E 2095 FNL 2111 FWL BHL Sec 25 T08S R16E 1301 FNL 1301 FWL

43-013-50285 GMBU E-2-9-16 Sec 34 T08S R16E 0645 FSL 0675 FEL BHL Sec 02 T09S R16E 0010 FNL 0010 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Greater Monument Butte Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:3-22-10

#### WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED:	3/12/2010		API NO. ASSIGNED:	43013502850000
	Greater Monument I	Butte E-2-9-16		
OPERATOR:	NEWFIELD PRODUC	TION COMPANY (N2695)	PHONE NUMBER:	435 646-4825
CONTACT:	Mandie Crozier			
PROPOSED LOCATION:	SESE 34 080S 160E	:	Permit Tech Review:	<b>P</b>
PROPOSED LOCATION.	3232 34 0003 1002	•	remit feeli keview.	Į <b>Y</b>
SURFACE:	0645 FSL 0675 FEL		Engineering Review:	
				,—
воттом:	0010 FNL 0010 FWL	-	Geology Review:	
COUNTY:	DUCHESNE			
LATITUDE:	40.06889		LONGITUDE:	-110.09781
UTM SURF EASTINGS:	576936.00		NORTHINGS:	4435583.00
FIELD NAME:	MONUMENT BUTTE			
LEASE TYPE:	1 - Federal			
LEASE NUMBER:	UTU-16535	PROPOSED PRODUCING F	ORMATION(S): GREEN RIV	ER
SURFACE OWNER:			COALBED METHANE:	
RECEIVED AND/OR REVIEW	NED:	LOCATION AND S	SITING:	
<b>₽</b> PLAT		R649-2-3.		
A Barrata EEDEDAL WYDOO	00402	,— <b>Unit:</b> GMBU (G	:DD\/\	
<b>▶ Bond:</b> FEDERAL - WYB00	J0493	Unit: Girbo (C	intity)	
Potash		R649-3-2. G	eneral	
Oil Shale 190-5				
Oil Shale 190-3		R649-3-3. E	kception	
Oil Shale 190-13		✓ Drilling Unit	ŧ	
<b>✓</b> Water Permit: 43-7478		Board Caus	se No: Cause 213-11	
RDCC Review:		Effective D	ate: 11/30/2009	
Fee Surface Agreemen	it	Siting: Sus	pends General Siting	
Intent to Commingle		<b>⊮</b> R649-3-11. ∣	Directional Drill	
Commingling Approved				
Comments: Presite Co	mpleted			
Stipulations: 4 - Federa	al Approval - dmason			

4 - Federal Approval - dmason 15 - Directional - dmason 27 - Other - Bhill

API Well No: 43013502850000



GREGORY S. BELI
Lieutenant Governor

#### State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

#### Permit To Drill

\*\*\*\*\*

Well Name: Greater Monument Butte E-2-9-16

API Well Number: 43013502850000 Lease Number: UTU-16535 Surface Owner: FEDERAL

**Approval Date:** 3/25/2010

#### **Issued to:**

NEWFIELD PRODUCTION COMPANY, Rt 3 Box 3630, Myton, UT 84052

#### **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 213-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Production casing cement shall be brought up to or above the top of the unitized interval for the Greater Monument Butte Unit (Cause No. 213-11).

#### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

API Well No: 43013502850000

#### **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:** 

Gil Hunt

Associate Director, Oil & Gas

Die Hunt

Form 3160-3 FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010 (August 2007) UNITED STATES Lease Serial No. DEPARTMENT OF THE INTERIOR UTU-16535 BUREAU OF LAND MANAGEMENT If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER 7. If Unit or CA Agreement, Name and No. **✓** DRILL la. Type of work: REENTER Greater Monument Butte 8. Lease Name and Well No. ✓ Oil Well Gas Well lb. Type of Well: ✓ Single Zone Multiple Zone Greater Monument Butte E-2-9-16 Name of Operator 9. API Well No. Newfield Production Company 43-013-50285 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory Route #3 Box 3630, Myton UT 84052 (435) 646-3721 Monument Butte 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area SE/SE 645' FSL 675' FEL Sec. 34, T8S R16E (UTU-16535) Sec. 34, T8S R16E At proposed prod. zone NW/NW 10' FNL 10' FWL Sec. 2, T9S R16E (ML-21839) 12. County or Parish 14. Distance in miles and direction from nearest town or post office\* 13. State Approximately 12.0 miles south of Myton, UT Duchesne UT 15. Distance from proposed\* 16. No. of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. Approx. 10' f/lse, NA' f/unit 920.00 20 Acres (Also to nearest drig, unit line, if any) 18. Distance from proposed location\* to nearest well, drilling, completed, 19. Proposed Depth 20. BLM/BIA Bond No. on file Approx. 1320' 6,446 WYB000493 applied for, on this lease, ft. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 2010 5612' GL (7) days from SPUD to rig release 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form: 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date

- Such other site specific information and/or plans as may be required by the

I lardie voen	Mandie Crozier	3/11/0
Title Regulatory Specialist		
Approved by (Signature)	Name Jarmes H. Sparger	Date OCT 0 7 2010

Acting Assistant Field Manager Office VERNAL FIELD OFFICE Lands & Mineral Resources

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

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\*(Instructions on page 2)

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RECEIVED OFFICE OCT 1 9 2010



# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL FIELD OFFICE VERNAL, UT 84078

(435) 781-4400



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Newfield Production Company Greater Monument Butte E-2-9-16

170 South 500 East

43-013-50285

Location: Lease No: SESE, Sec. 34, T8S R16E

No: UTU-16535

Agreement: Greater Monument Butte

OFFICE NUMBER: (435) 781-4400

**OFFICE FAX NUMBER: (435) 781-3420** 

### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

#### **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut vn opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.

#### SITE SPECIFIC CONDITIONS OF APPROVAL

- Construction and drilling is not allowed from May 1<sup>st</sup> June 15<sup>th</sup> to minimize impacts during Mountain plover nesting.
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or
  qualified biologist should be notified so surveys can be conducted. Depending upon the results of
  the surveys, permission to proceed may or may not be recommended or granted by the BLM
  biologist.
- Prior to construction, an invasive plants/noxious weeds inventory will be completed for all areas where surface disturbance will occur, and a completed Weed Inventory Form will be submitted to the BLM Authorized Officer.

#### Reclamation

 Reclamation will be completed in accordance with the Newfield Exploration Company Castle Peak and Eight Mile Flat Reclamation Plan on file with the Vernal Field Office of the BLM.

Seed Mix (Interim and Final Reclamation)

Common name	Latin name	lbs/acre	Recommended seed planting depth
Squirreltail grass	Elymus elymoides	3.0	1/4 - 1/2"
Needle and thread grass	Hesperostipa comata	3.0	1/2"
Idaho fescue	Festuca idahoensis	2.0	1/4 - 1/2"
Shadscale saltbush	Atriplex confertifolia	3.0	1/2"
Four-wing saltbush	Atriplex canescens	3.0	1/2"
Gardner's saltbush	Atriplex gardneri	2.0	1/2"
Blue flax (Lewis flax)	Linum lewisii	2.0	1/8 - 1/4"

All pounds are pure live seed.

- All seed and mulch would be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.

#### Monitoring and Reporting

- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) that designates the proposed site-specific monitoring and reference sites chosen for the location. A description of the proposed sites shall be included, as well as a map showing the locations of the proposed sites.
- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) 3 growing seasons after reclamation efforts have occurred evaluating the status of the reclaimed areas in order to determine whether the BLM standards set forth in the Green River District Reclamation Guidelines have been met (30% or greater basal cover).

#### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

• The operator shall comply with all applicable requirements in the SOP (version: "Ute Tribe Green River Development Program", April 17, 2008). The operator shall also comply with applicable laws and regulations; with the lease terms, Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the authorized officer.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB

or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

#### OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1.
   Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

## BLM - Vernal Field Office - Notification Form

Ope	rator <u>Newfiel</u>	<u>d Exploration</u>			Rig
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<u>746</u>	8	<del></del>			
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OPERATOR: NEWFIELD PRODUCTION COMPANY ADDRESS: RT. 3 BOX 3630 MYTON, UT 84052

OPERATOR ACCT. NO.	N2695

ACTION	CURRENT ENTITY NO.	NEW	API NUMBER	WELL NAME	<del></del>		MELL	LOCATION	<del> </del>		
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C - fi	om one existing entity to another	r existing entity		BEARWER					Signature	<del>                                      </del>	Jentri Park
	vell from one existing entity to a er (explain in comments section			RECEIVED						_	
NOTE: Use COMMENT section to explain why each Action Code was selected		NOV 1 6 2010				<u>!</u>	Production Clerk	V	11/16/10		

NOTE: Use COMMENT section to explain why each Action Code was selected.

DIV. OF OIL, GAS & MINING

FORM 3160-5 (August 2007)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31,2010

]	BUREAU OF LAND MAN	AGEMENT	5. Lease Serial	No		
SUNDRY	Y NOTICES AND REPO	USA UTU-10				
	this form for proposals t rell. Use Form 3160-3 (A	an cray iii	6. If Indian, Allottee or Tribe Name.			
SUBMIT IN	TRIPLICATE - Other	Instructions on page	7. If Unit or CA	7. If Unit or CA/Agreement, Name and/or		
1. Type of Well Oil Well Gas Well	Other					
2. Name of Operator	- Outer		8. Well Name a GRTR MB E-			
NEWFIELD PRODUCTION CO 3a. Address Route 3 Box 3630	<u>)MPANY</u>	21. 79	9. API Well No	).		
Myton, UT 84052		3b. Phone (include 435.646.3721	are code) 4301350285	ool, or Exploratory Area		
	Sec., T., R., M., or Survey Desci		GREATER M	IB UNIT		
0 2 TOO BLCE	Cr.	. 115	11. County or F	'arish, State		
Section 2 T9S R16E	85		DUCHESNE DUCHESNE			
†3.84 ·	CAPPROPRIATE BOX()	ES) TO INIDICATE	NATURE OF NOTICE, OR C	OTHER DATA		
(ATYPE OF SUBMISSION	<u> </u>	T	YPE OF ACTION			
Notice of Intent	Acidize	Deepen T	Production (Start/Resume)	<del></del>		
Subsequent Report	Alter Casing Casing Repair	Fracture Treat  New Construction	Reclamation Recomplete	Well Integrity Other		
1. m <u>hp 4.4m</u> m	Change Plans	Plug & Abandon	Temporarily Abandon	Spud Notice		
Final Abandonment	Convert to Injector	Plug Back	☐ Water Disposal			
ppg with 1.17 cirsk yield.	Returned 6.5 bbls cemer	nt to pit. VVOC.				
Jone 15						
Case Case Case Case Case Case Case Case				RECEIVED		
materials and the second secon				DEC 07 2010		
				DIV. OF OIL, GAS & MINING		
I hereby certify that the foregoing is	s true and	Title	<del></del>			
correct (Printed/ Typed) Mitch Benson		Drilling For	eman			
Signature // //	u	Date 11/17/2010				
	THIS SPACE F	OR FEDERAL OR	STATE OFFICE USE			
ALCO DATE ALCO						
Approved by Conditions of approval, if any, are attach	ed. Approval of this notice does no	t warrant or	e[D	Date		
certify that the applicant holds legal or en	quitable title to those rights in the su		ice			

Titles 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Înstructions on page 2)

#### **NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT**

			8 5/8"	CASING SET AT		308.45	<b></b>		
LAST CASING	14	SET AT	20		OPERATO	ıR	Newfield	Exploration	Company
DATUM	12	<u> </u>					B E-2-9-16		
DATUM TO CUT		NG	12	-			Monumer		
DATUM TO BRA	DENHEAD			<u></u>	CONTRAC	_		Ross Rig #2	29
TD DRILLER			GER						
-	12 1/4"	•		_					
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1		Guide Shoe	е					Α	0.9
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TOTAL LENGTH	OF STRING	3	298.45	7	LESS CUT	OFF PIEC	E	!	2
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T	TIMING				]				
BEGIN RUN CSC	Э	Spud	10:00 AM	11/12/2010	GOOD CIR	C THRU J	OB	Yes	
CSG. IN HOLE			4:00 PM	11/12/2010	Bbis CMT (	CIRC TO S	URFACE	6	
BEGIN CIRC			8:45 AM	11/17/2010	RECIPROC	CATED PIP	No_No		
BEGIN PUMP CI	MT		8:55 AM	11/17/2010	]				
DECINIDEDI CI	A AT	7	O:OE AM	11/17/2010	DUMPED F	OLUC TO	450		

11/17/2010

9:10 AM

PLUG DOWN

CEMENT USED		C	CEMENT COMPANY- BJ Services					
STAGE	# SX	C	EMENT TYPE & ADDIT	IVES				
1	160	Class "G" + 2% CaCl2 + 0.25	#/sk Cello Flake at 15.8 ppg w	/ 1.17 yield.				
			·					
				· · · · · · · · · · · · · · · · · · ·				
		***						
<del> </del>								
				<del></del>				
OENTO ALIZE	-D & CCDAT	CUED DI ACCMENT		CHOW MAKE & CDACING				
··		CHER PLACEMENT	of throo	SHOW MAKE & SPACING				
wildale of its	s, top of sec	ond, and third for a total	oi unee.					
	EPRESENTA	ATIVE Don Bastia	<b>n</b>	DATE 11/17/2010				
JUMPANT R	CLKEOENIA	viiv⊏ Düli Dastia	11	DAIE 11/1/2010				

#### STATE OF UTAH

(This space for State use only)

	5. LEASE DESIGNATION AND SERIAL NUMBER: USA UTU-16535		
SUNDRY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for proposals to dri wells, or to drill horizonta	7. UNIT or CA AGREEMENT NAME: GMBU		
1. TYPE OF WELL: OIL WELL			8. WELL NAME and NUMBER: GRTR MB E-2-9-16
2. NAME OF OPERATOR:			9. API NUMBER:
NEWFIELD PRODUCTION COM	IPANY		4301350285
3. ADDRESS OF OPERATOR:		PHONE NUMBER	10. FIELD AND POOL, OR WILDCAT:
Route 3 Box 3630	CITY Myton STATE UT	ZIP 84052 435.646.3721	GREATER MB UNIT
4. LOCATION OF WELL: FOOTAGES AT SURFACE:			COUNTY: DUCHESNE
OTR/OTR. SECTION, TOWNSHIP, RANGE,	MERIDIAN: , 2, T9S, R16E	85 16E 3	STATE: UT
11. CHECK APPROP	PRIATE BOXES TO INDICATE	E NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	DEEPEN	REPERFORATE CURRENT FORMATION
NOTICE OF INTENT (Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will	CASING REPAIR	NEW CONSTRUCTION	TEMPORARITLY ABANDON
Approximate date work win	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR
***************************************	IE '	=	=
CII	CHANGE TUBING	PLUG AND ABANDON	☐ VENT OR FLAIR
SUBSEOUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME	L PLUG BACK	WATER DISPOSAL
Date of Work Completion:	CHANGE WELL STATUS	PRODUCTION (START/STOP)	WATER SHUT-OFF
Sale of Work Completion.	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	OTHER: - Weekly Status Report
01/06/2011	CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATION	
	OMPLETED OPERATIONS. Clearly show a s completed on 01-06-11, attached is		olumes, etc.
NAME (PLEASE PRINT) Lucy Chavez-N	Vaupoto	TITLE Administrative Assi	stant
/	20 1/-2	11100	
SIGNATURE C	'Yay-Nous	DATE01/10/2011	RECEIVED

JAN 1 2 2011

#### **Daily Activity Report**

#### Format For Sundry GRTR MB E-2-9-16 11/1/2010 To 3/28/2011

12/17/2010 Day: 1

Completion

Rigless on 12/17/2010 - Test casing to 4500 psi. CBL/Perferate 1st stage. - RU frac head & Cameron BOP's. RU Hot Oiler & test casing, frac head w/ valves & BOP's to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD was 6398' w/ cement top @ 240'. RIH w/ 3-1/8" Port Guns (11 gram, .36"EH, 120°, 16.82"pen) & perferate CP5 sds @ 6241-47', CP4 sds @ 6202-06' w/ 3 spf for total of 30 shots. RD WLT & Hot Oiler. SIFN w/ 153 bbls EWTR.

**Daily Cost: \$0** 

**Cumulative Cost:** \$15,624

#### 12/20/2010 Day: 2

Completion

Rigless on 12/20/2010 - Frac 3 stages. - RU BJ Services. Frac CP5/CP4 sds as shown in stimulation report. 544 BWTR. - RU PSI wireline. Set CBP & perf CP3/CP1 sds as shown in perforation report. RU BJ Services. Frac CP3/CP1 sds as shown in stimulation report. 927 BWTR. - RU PSI wireline. Set CBP & perf A3/B2 sds as shown in perforation report. RU BJ Services. Frac A3/B2 sds as shown in stimulation report. 1259 BWTR. - RU PSI wireline. Set CBP & perf D1 sds as shown in perforation report. SWIFN.

Daily Cost: \$0

Cumulative Cost: \$30,664

#### 12/21/2010 Day: 3

Completion

Rigless on 12/21/2010 - Frac remaining zones. - RU BJ Services. Frac D1 sds as shown in stimulation report. 1660 BWTR. - RU PSI wireline. Set CBP & perf Xstray/PB10 sds as shown in perforation report. RU BJ Services. Frac Xstray/PB10 sds as shown in stimulation report. 1974 BWTR. - RU PSI wireline. Set CBP & perf GB6/GB4 sds as shown in perforation report. RU BJ Services. Frac GB6/GB4 sds as shown in stimulation report. 2325 BWTR. RD BJ Services & PSI wireline. Open well to pit for immediate flowback @ approx. 3 bpm. Well flowed for 4.5 hrs & turned to oil. Recovered 600 bbls. SWIFN. 1725 BWTR.

Daily Cost: \$0

**Cumulative Cost:** \$126,199

#### 12/29/2010 Day: 4

Completion

WWS #3 on 12/29/2010 - Set kill plug. MIRU WWS #3. ND Cameron BOP. NU Schaeffer BOP. SWIFN. - RU The Perforators wireline. Set CBP @ 4390'. Bleed off well. MIRU WWS #3. ND Cameron BOP & 5m frac head. NU 3m production head & Schaeffer BOP. SWIFN.

Daily Cost: \$0

**Cumulative Cost:** \$171,305

#### 12/30/2010 Day: 5

Completion

WWS #3 on 12/30/2010 - RIH w/ tbg. DU CBPs. - 490 psi on well. Bleed off well. RIH w/ 4 3/4" chomp bit, bit sub & new 2 7/8" tbg. from pipe racks (tallying & drifting). Tag CBP @

4390'. RU powerswivel & pump. DU CBP in 15 min. Cont. RIH w/ tbg. Tag CBP @ 4560'. DU CBP in 25 min. Cont. RIH w/ tbg. Tag fill @ 4772'. C/O to CBP @ 4990'. DU CBP in 23 min. SWIFN. 1475 BWTR.

Daily Cost: \$0

**Cumulative Cost:** \$178,378

#### 1/3/2011 Day: 6

Completion

WWS #3 on 1/3/2011 - DU CBPs. - Csg. @ 450 psi, tbg. @ 320 psi. Bleed off well. Cont. RIH w/ tbg. Tag fill @ 5035'. C/O to CBP @ 5120'. DU CBP in 25 min. Cont. RIH w/ tbg. Tag CBP @ 5670'. DU CBP in 30 min. Cont. RIH w/ tbg. Tag fill @ 5910'. C/O to CBP @ 6150'. DU CBP in 22 min. Circulate well clean. SWIFN.

Daily Cost: \$0

**Cumulative Cost:** \$189,381

#### 1/4/2011 Day: 7

Completion

WWS #3 on 1/4/2011 - C/O to PBTD. Swab for cleanup. - Csg. @ 550 psi, tbg. @ 390 psi. Bleed off well. Cont. RIH w/ tbg. Tag fill @ 6307'. C/O to PBTD @ 6431'. Circulate well clean. Pull up to 6363'. RIH w/ swab. SFL @ surface. Made 9 runs. Recovered 125 bbls. Trace of oil. Making a lot of sand. EFL @ 600'. SWIFN.

Daily Cost: \$0

**Cumulative Cost:** \$195,923

#### 1/5/2011 Day: 8

**Completion** 

WWS #3 on 1/5/2011 - Flow well. Round trip tbg. ND BOP. RIH w/ partial rod string. SWIFN w/ polished rod. 1380 BWTR. - Csg. @ 550 psi, tbg. @ 500 psi. Flow well for 2.5 hrs. Recovered 115 bbls. Ending oil cut @ approx. 20%. Kill tbg. w/ 20 bbls water. RIH w/ tbg. Tag fill @ 6423'. C/O to PBTD @ 6431'. Circulate well clean. LD extra tbg. POOH w/ tbg. LD BHA. RIH w/ 2 7/8" notched collar, 2 jts 2 7/8" tbg., PSN, 2 jts 2 7/8" tbg., 5 1/2" TAC & 198 jts 2 7/8" tbg. ND BOP. Set TAC @ 6181' w/ 18,000# tension. NU wellhead. X-over for rods. Flush tbg. w/ 60 bbls. RIH w/ Central Hydraulic 2 1/2" x 1 3/4" x 20' x 24' RHAC rod pump, 4- 1 1/2" weight bars & 80- 7/8" guided rods. SWIFN w/ polished rod. 1380 BWTR.

Daily Cost: \$0

Cumulative Cost: \$202,134

#### 1/6/2011 Day: 9

Completion

WWS #3 on 1/6/2011 - RIH w/ rods. RU pumping unit. Hang off rods. Stroke test to 800 psi. Good pump action. PWOP @ 4:30 p.m. 144" stroke length, 5 spm. Final Report. 1210 BWTR. - Csg. @ 350 psi, tbg. @ 200 psi. Bleed off well. RIH w/ Central Hydraulic 2 1/2" x 1 3/4" x 20' x 24' RHAC rod pump, 4- 1 1/2" weight bars, 243- 7/8" guided rods (8 per), 1- 8, 6, 4, 2 x 7/8" pony subs, 1 1/2" x 30' polished rod. Seat pump. RU pumping unit. Hang off rods. Stroke test to 800 psi. Good pump action. RD. PWOP @ 4:30 p.m. 144" stroke length, 5 spm. Final Report. 1210 BWTR. **Finalized** 

Daily Cost: \$0

Cumulative Cost: \$237,926

Pertinent Files: Go to File List



## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

5. Lease Serial No.

WFII	COMPL	ETION OR	RECOMPL	FTION	REPORT AND	HOG

												UTU	-1653	5	
la. Type of b. Type of	Well Completion	<b>✓</b> Oi ı: <b>✓</b> Ne	Well	Gas Well Work Over	Dry Deepen D	Other Plug Back	☐ Dif	f. Resvr.	•		***************************************	6. If	Indian,	Allottee or T	Tribe Name
		Otl	ner:									7. Ur GME		A Agreemen	t Name and No.
	Operator D EXPLO	RATION	COMPANY	,	· · · · · · · · · · · · · · · · · · ·							GRE	ATER		No. ENT BT E-2-9-16
3. Address	1401 17TH	ST. SUITE	1000 DENVER,	CO 80202			a. Phone 435)646		lude area	code)			FI Well 13-50		
4. Location	of Well (R	eport loca	ation clearly a	nd in accor	dance with Federa	l requireme	nts)*	3HL	Rev	lew	ed			d Pool or Ex	ploratory
At surfac	<sup>ce</sup> 645' FS	L & 675	FEL (SE/SI	E) SEC. 3	4, T8S, R16E (U	JTU-16535		k	ÞÝ Η	5m	١,			R., M., on B	Flock and 34, T8S, R16E
At top pro	od. interval :	renorted h	elow 97' FS	L & 85' FI	EL (SE/SE) SEC	. 34. T8S.	R16E (I					12 C	'ounty i	or Parish	13. State
At total d	1701				EC. 2, T9S, R16		·		,,,,,				HESN		UT
14. Date Sp	udded			T.D. Reach	ed		Date Com								B, RT, GL)*
11/12/201 18. Total D		6451	12/06/2		lug Back T.D.: N	<u>  L</u> /ID 6431'	D&A	V I	Ready to I		lge Plug		YGL :	5624' KB	
	TV	D 6326'			T	VD 43	230L	9	Ì				CVD		
			nical Logs Run P. DENSITY,	•	opy of each) IEUTRON,GR,C	ALIPER, (	СМТ ВО	ND		S DST 1		IZI No	, 🗖	Yes (Submit Yes (Submit Yes (Submit	report)
23. Casing	and Liner F	Record (R	Report all strin	gs set in we	ell)	Store C		l Ma	of Clas P		Cl	V-1			
Hole Size	Size/Gr	ade W	/t. (#/ft.)	Top (MD)	Bottom (MD)		ementer pth		of Sks. & of Cemer	t t	Slurry (BBI		Cem	ent Top*	Amount Pulled
12-1/4"	8-5/8" J				308'			<del>                                     </del>	LASS G	-					
7-7/8"	5-1/2" J	-55   15	5.5# 0		6445'				RIMLITE				240'		
	-						· · · · · · · · · · · · · · · · · · ·	400 5	0/50 PO	<del>-</del>  -					
	-												· · ·		
						<u> </u>									
24. Tubing															
Size 2-7/8"		Set (MD) 2 6312'	Packer Dep		Size	Depth Se	et (MD)	Packer	Depth (M)	D)	Size	-	Dept	h Set (MD)	Packer Depth (MD)
25. Produci			11 K (@ 0102	<u> </u>	<u> </u>	26. Pe	rforation 1	Record			···				<u></u>
1) 0	Formation	n		Гор	Bottom	<del>                                     </del>	forated In	terval		Siz	ze	No. H	oles		Perf. Status
A) Green B)	River		4467'		6247'	6202-62				36"		30	· · · ·		
C)						4467-60	)68'			34"		135			
D)						1								·	
27. Acid, F	racture, Trea	atment, Co	ement Squeeze	e, etc.	I									<u> </u>	
	Depth Inter	val							and Type			, .			
4467-6247	<b>,</b>		Frac w	/ 140820	#'s 20/40 sand ir	1192 bbl	s of Ligh	tning 1	7 fluid in	6 sta	iges				
										-					
															· · · · · · · · · · · · · · · · · · ·
28. Product			!												
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		/ater BL	Oil Grav Corr. Al		Gas Gravi	ty	F	ction Me 2" x 1-3/		0' x 24' RH	IAC Pump
01/05/11	01/17/11	24	-	21	6.89	7									
Choke	Tbg. Press.		24 Hr.	Oil		/ater	Gas/Oil			Status					
Size	Flwg. SI	Press.	Rate	BBL	MCF B	BL	Ratio		PRC	DUC	ING				
20a Dandar	diam Intern	1 D		<u> </u>											
28a. Produc Date First		Hours	Test	Oil	Gas W	/ater	Oil Grav	ity	Gas		Produ	ction Me	thod		
Produced		Tested	Production	BBL	MCF B	BL	Corr. Al		Gravii	ty					
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		ater BL	Gas/Oil Ratio		Well S	Status					
	SI		-					ECF	EIVE	D	:				
*(See instr	uctions and	spaces fo	r additional da	ta on page	2)										

JAN 2 4 2011

28b. Prod	uction - Inte	rval C			· · · · · · · · · · · · · · · · · · ·					
	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	1	
28c. Produ	uction - Inte	rval D					······································	<u> </u>		
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status		
29. Dispos	sition of Gas	(Solid, us	ed for fuel, ve	nted, etc.)	1	.L				
USED FOR				,						
		us Zones (	Include Aqui	fers):				31 Formatio	on (Log) Markers	
Show a	ill important	zones of p	orosity and co	ontents ther	eof: Cored into open, flowing	ervals and all de and shut-in pre	rill-stem tests, essures and		CAL MARKERS	
_										Тор
Form	nation	Тор	Bottom		Descrip	tions, Contents	s, etc.		Name	Meas. Depth
GREEN RIV	/ER	4467'	6247'					GARDEN GUL GARDEN GUL		3993' 4211'
								GARDEN GUL POINT 3	LCH 2	4334' 4603'
								X MRKR Y MRKR		4863' 4898'
								DOUGALS CF BI CARBONA		5023' 5278'
								8 LIMESTON CASTLE PEAR		5410' 5897'
								BASAL CARBO	DNATE	6334'
32. Additi	onal remark	s (include	plugging proc	edure):						
33. Indicat	te which iten	ns have be	en attached by	placing a	heck in the app	propriate boxes	:			
Fleet	trical/Mechan	nical Loge (	l full set req'd	,	Пс	ologic Report	☐ DST Rep	\.	☑ Directional Survey	
_		- '	nd cement ver			re Analysis		rilling Daily A		
34. I hereb	y certify tha	t the foreg	oing and attac	hed inform	ation is comple	te and correct a	as determined from	all available rec	cords (see attached instructions)*	
			y Chavez-N					ive Assistant		
	gnature/	fu	-7 C	275	pu	r	Oate 01/18/2011			<del></del>
Title 18 U.S	S.C. Section	1001 and	Title 43 U.S.C	C. Section 1	212, make it a	crime for any p	erson knowingly ar	nd willfully to n	nake to any department or agency	of the United States any

(Continued on page 3) (Form 3160-4, page 2)



### **NEWFIELD EXPLORATION**

USGS Myton SW (UT) SECTION 34 T8S, R16E E-2-9-16

Wellbore #1

**Design: Actual** 

### **Standard Survey Report**

08 December, 2010





Survey Report



Company:

**NEWFIELD EXPLORATION** 

Project:

USGS Myton SW (UT)

Site:

**SECTION 34 T8S, R16E** 

Well: Wellbore: E-2-9-16 Wellbore #1

Design:

Actual

Local Co-ordinate Reference:

**TVD Reference:** 

Well E-2-9-16

E-2-9-16 @ 5624.0ft (Rig 2) E-2-9-16 @ 5624.0ft (Rig 2)

MD Reference:

North Reference:

**Survey Calculation Method:** Minimum Curvature

Database:

EDM 2003.21 Single User Db

**Project** 

USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA

Map System: Map Zone:

US State Plane 1983

Geo Datum:

North American Datum 1983

Utah Central Zone

System Datum:

Mean Sea Level

Site

SECTION 34 T8S, R16E, SEC 34 T8S, R16E

Site Position:

Northing:

7,199,000.00 ft

Latitude:

40° 4' 29.106 N

From:

Lat/Long

Easting:

2,031,000.00ft

Longitude:

110° 6' 14.985 W

**Position Uncertainty:** 

0.0 ft

Slot Radius:

**Grid Convergence:** 

0.89°

Well

E-2-9-16, SHL LAT: 40 04 08.15, LONG -110 05 54.63

**Well Position** 

+N/-S +E/-W 0.0 ft 0.0 ft Northing:

7,196,904.59 ft

Latitude:

40° 4' 8.150 N

**Position Uncertainty** 

0.0 ft

Easting:

2,032,615.22 ft

Longitude:

110° 5' 54.630 W

Wellhead Elevation:

5,624.0 ft

**Ground Level:** 

5,612.0 ft

Wellbore

Wellbore #1

Magnetics

**Model Name** 

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

2010/12/08

11.40

65.82

52.329

Design

Actual

**Audit Notes:** 

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

0.0

**Vertical Section:** 

Depth From (TVD)

(ft) 0.0 +N/-S (ft) 0.0

+E/-W (ft) 0.0

Direction

(°) 132.25

**Survey Program** 

Date 2010/12/08

From (ft)

To

(ft)

Survey (Wellbore)

**Tool Name** 

Description

17.0 1.644.0 1,612.0 Survey #1 (Wellbore #1) 6,451.0 Survey #2 (Wellbore #1) CT\_GYRO\_MS MWD

Continuous Gyro Multishot

MWD - Standard

Measured Depth (ft)	Inclinat (°)	ion	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0		0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
17.0		0.43	106.49	17.0	0.0	0.1	0.1	2.53	2.53	0.00
18.0		0.71	125.69	18.0	0.0	0.1	0.1	33.52	28.00	1,920.00
19.0		0.77	126.84	19.0	0.0	0.1	0.1	6.18	6.00	115.00
20.0	*	0.69	127.19	20.0	0.0	0.1	0.1	8.01	-8.00	35.00
21.0		0.80	123.48	21.0	0.0	0.1	0.1	12.01	11.00	-371.00
22.0	: 1	0.81	123.92	22.0	-0.1	0.1	0.1	1.18	1.00	44.00
23.0		0.84	128.26	23.0	-0.1	0.1	0.1	6.93	3.00	434.00
24.0		0.84	126.21	24.0	-0.1	0.1	0,1	3.01	0.00	-205.00
25.0		0.85	126.13	25.0	-0.1	0.1	0.2	1.01	1.00	-8.00
26.0		0.82	124.36	26.0	-0.1	0.2	0.2	3.96	-3.00	-177.00
27.0	(	0.82	124.50	27.0	-0.1	0.2	0.2	0.20	0.00	14.00



Survey Report

Database:



Company:

**NEWFIELD EXPLORATION** 

Project: Site:

USGS Myton SW (UT) **SECTION 34 T8S, R16E** 

Well: Wellbore: E-2-9-16

Design:

Actual

Wellbore #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

E-2-9-16 @ 5624.0ft (Rig 2)

E-2-9-16 @ 5624.0ft (Rig 2)

North Reference: **Survey Calculation Method:** 

Minimum Curvature

Well E-2-9-16

EDM 2003.21 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
28.0	0.82	125.56	28.0	-0.1	0.2	0.2	1.52	0.00	106.00
29.0	0.83	123.44	29.0	-0.1	0.2	0.2	3.21	1.00	-212.00
30.0	0.83	122.68	30.0	-0.1	0.2	0.2	1.10	0.00	-76.00
31.0	0.84	124.48	31.0	-0.1	0.2	0.2	2.81	1.00	180.00
32.0	0.85	121.17	32.0	-0.1	0.2	0.3	4.98	1.00	-331.00
62.0	0.99	123.72	62.0	-0.4	0.6	0.7	0.49	0.47	8.50
92.0	1.27	135.62	92.0	-0.8	1.1	1.3	1.21	0.93	39.67
122.0	1.87	144.96	122.0	-1.4	1.6	2.1	2.17	2.00	31.13
152.0	2.71	157.80	152.0	-2.5	2.1	3.3	3.26	2.80	42.80
182.0	2.92	166.48	181.9	-3.9	2.6	4.5	1.58	0.70	28.93
212.0	3.35	160.85	211.9	-5.4	3.1	5.9	1.76	1.43	-18.77
242.0	3.78	166.70	241.8	-7.2	3.6	7.5	1.88	1.43	19.50
272.0	3.96	168.85	271.7	-9.2	4.0	9.2	0.77	0.60	7.17
302.0	4.20	173.39	301.7	-11.3	4.3	10.8	1.34	0.80	15.13
332.0	4.30	170.52	331.6	-13.5	4.6	12.5	0.78	0.33	-9.57
362.0	4.51	175.72	361.5	-15.8	4.9	14.3	1.50	0.70	17.33
392.0	4.17	174.20	391.4	-18.1	5.1	15.9	1.20	-1.13	-5.07
422.0	4.51	173.28	421.3	-20.3	5.4	17.6	1.16	1.13	-3.07
452.0	4.96	168.69	451.2	-22.8	5.8	19.6	1.96	1.50	-15.30
482.0	5.24	161.54	481.1	-25.3	6.4	21.8	2.31	0.93	-23.83
512.0	5.38	157.26	511.0	-27.9	7.4	24.3	1.40	0.47	-14.27
562.0	5.44	151.83	560.8	-32.2	9.4	28.6	1.03	0.12	-10.86
612.0	5.68	149.87	610.5	-36.4	11.8	33.2	0.61	0.48	-3.92
662.0	5.84	142.49	660.3	-40.6	14.6	38.1	1.51	0.32	-14.76
712.0	5.88	138.53	710.0	-44.5	17.8	43.1	0.81	0.08	-7.92
762.0	6.30	131.07	759.7	-48.2	21.6	48.4	1.79	0.84	-14.92
812.0	6.27	127.93	809.4	-51.7	25.8	53.9	0.69	-0.06	-6.28
862.0	6.41	133.21	859.1	-55.3	30.0	59.4	1.20	0.28	10.56
912.0	6.83	128.53	908.8	-59.1	34.4	65.2	1.37	0.84	-9.36
962.0	6.99	125.31	958.4	-62.7	39.2	71.1	0.84	0.32	-6.44
1,012.0	7.50	126.96	1,008.0	-66.4	44.3	77.4	1.10	1.02	3.30
1,062.0	8.02	124.83	1,057.6	-70.3	49.7	84.1	1.19	1.04	-4.26
1,112.0	8.20	126.13	1,107.1	-74.4	55.5	91.1	0.51	0.36	2.60
1,162.0	8.40	128.27	1,156.5	-78.8	61.2	98.3	0.74	0.40	4.28
1,212.0	9.08	129.01	1,206.0	-83.6	67.2	105.9	1.38	1.36	1.48
1,262.0	10.12	132.30	1,255.3	-89.0	73.5	114.2	2.35	2.08	6.58
1,312.0	10.52	134.42	1,304.5	-95.1	80.0	123.2	1.10	0.80	4.24
1,362.0	11.39	134.57	1,353.5	-101.8	86.8	132.7	1.74	1.74	0.30
1,412.0 1,462.0 1,512.0 1,612.0 <b>Gyro to 16</b>	11.51 11.61 11.89 12.22	136.43 136.01 133.78 131.39	1,402.5 1,451.5 1,500.5 1,598.3	-108.9 -116.1 -123.3 -137.4	93.7 100.7 107.9 123.2	142.6 152.6 162.8 183.6	0.78 0.26 1.07 0.60	0.24 0.20 0.56 0.33	3.72 -0.84 -4.46 -2.39
1,644.0	12.13	130.78	1,629.6	-141.9	128.3	190.4	0.49	-0.28	-1.91
1,676.0	12.30	131.13	1,660.8	-146.3	133.4	197.1	0.58	0.53	1.09
1,708.0	12.52	130.91	1,692.1	-150.8	138.6	204.0	0.70	0.69	-0.69
1,740.0	12.70	131.35	1,723.3	-155.4	143.9	211.0	0.64	0.56	1.38
1,771.0	12.70	131.79	1,753.6	-159.9	149.0	217.8	0.31	0.00	1.42
1,803.0	12.57	132.80	1,784.8	-164.6	154.2	224.8	0.80	-0.41	3.16
1,835.0	12.40	135.00	1,816.0	-169.4	159.2	231.7	1.58	-0.53	6.88
1,866.0	11.78	135.35	1,846.3	-174.0	163.7	238.2	2.01	-2.00	1.13
1,898.0	11.40	133.30	1,877.7	-178.5	168.3	244.6	1.75	-1.19	-6.41
1,930.0	11.00	130.00	1,909.1	-182.7	173.0	250.9	2.36	-1.25	-10.31
1,961.0	11.10	127.70	1,939.5	-186.4	177.6	256.8	1.46	0.32	-7.42



Survey Report



Company:

**NEWFIELD EXPLORATION** 

Project: Site:

USGS Myton SW (UT) SECTION 34 T8S, R16E

Well: Wellbore: E-2-9-16 Wellbore #1

Design:

Actual

Local Co-ordinate Reference:

TVD Reference:

E-2-9-16 @ 5624.0ft (Rig 2) E-2-9-16 @ 5624.0ft (Rig 2)

MD Reference:

Well E-2-9-16

North Reference:

**Survey Calculation Method:** 

Database:

Minimum Curvature

EDM 2003.21 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,993.0	11.20	126.60	1,970.9	-190.1	182.5	263.0	0.73	0.31	-3.44
2,025.0	11.20	128.10	2,002.3	-193.9	187.5	269.1	0.91	0.00	4.69
2,056.0	11.10	125.50	2,032.7	-197.5	192.3	275.1	1.65	-0.32	-8.39
2,088.0	11.40	125.80	2,064.1	-201.1	197.3	281.3	0.96	0.94	0.94
2,120.0	11.60	128.40	2,095.4	-205.0	202.4	287.7	1.74	0.63	8.13
2,152.0	12.10	126.20	2,126.8	-209.0	207.7	294.2	2.11	1.56	-6.88
2,183.0	12.50	126.40	2,157.1	-212.9	213.0	300.8	1.30	1.29	0.65
2,215.0	12.80	126.20	2,188.3	-217.0	218.6	307.7	0.95	0.94	-0.63
2,247.0	12.70	127.80	2,219.5	-221.3	224.3	314.8	1.15	-0.31	5.00
2,278.0	12.90	128.40	2,249.7	-225.5	229.7	321.6	0.77	0.65	1.94
2,310.0	12.70	130.30	2,280.9	-230.0	235.2	328.7	1.46	-0.63	5.94
2,342.0	12.70	129.90	2,312.1	-234.5	240.5	335.7	0.27	0.00	-1.25
2,374.0	12.80	131.40	2,343.3	-239.1	245.9	342.8	1.08	0.31	4.69
2,405.0	12.70	131.90	2,373.6	-243.7	251.0	349.6	0.48	-0.32	1.61
2,437.0	12.60	133.50	2,404.8	-248.4	256.2	356.6	1.14	-0.31	5.00
2,469.0	13.00	131.20	2,436.0	-253.2	261.4	363.7	2.02	1.25	-7.19
2,500.0	13.40	133.20	2,466.2	-258.0	266.6	370.8	1.96	1.29	6.45
2,532.0	13.30	133.40	2,497.3	-263.0	272.0	378.2	0.34	-0.31	0.63
2,564.0	12.92	133.63	2,528.5	-268.0	277.3	385.5	1.20	-1.19	0.72
2,596.0	12.90	134.00	2,559.7	-273.0	282.4	392.6	0.27	-0.06	1.16
2,628.0	13.00	132.83	2,590.9	-277.9	287.6	399.8	0.88	0.31	-3.66
2,660.0	12.70	130.30	2,622.1	-282.6	293.0	406.9	1.99	-0.94	-7.91
2,691.0	12.60	131.80	2,652.3	-287.1	298.1	413.7	1.11	-0.32	4.84
2,723.0	12.30	131.80	2,683.6	-291.7	303.2	420.6	0.94	-0.94	0.00
2,755.0	12.00	131.70	2,714.9	-296.2	308.3	427.3	0.94	-0.94	-0.31
2,786.0	11.60	131.40	2,745.2	-300.4	313.0	433.6	1.31	-1.29	-0.97
2,818.0	11.80	128.70	2,776.5	-304.5	318.0	440.1	1.82	0.63	-8.44
2,850.0	12.30	129.60	2,807.8	-308.8	323.1	446.8	1.67	1.56	2.81
2,881.0	12.30	129.50	2,838.1	-313.0	328.2	453.4	0.07	0.00	-0.32
2,913.0	12.76	128.00	2,869.4	-317.3	333.7	460.3	1.76	1.44	-4.69
2,945.0	12.90	128.80	2,900.6	-321.7	339.2	467.4	0.71	0.44	2.50
2,977.0	13.50	129.50	2,931.7	-326.3	344.9	474.7	1.94	1.88	2.19
3,008.0	13.60	129.60	2,961.8	-331.0	350.5	482.0	0.33	0.32	0.32
3,040.0	13.90	132.30	2,992.9	-335.9	356.2	489.6	2.21	0.94	8.44
3,072.0	13.70	132.60	3,024.0	-341.1	361.9	497.2	0.66	-0.63	0.94
3,103.0	13.80	131.80	3,054.1	-346.0	367.3	504.6	0.69	0.32	-2.58
3,135.0	14.30	133.40	3,085.2	-351.3	373.0	512.3	1.98	1.56	5.00
3,167.0	14.00	135.00	3,116.2	-356.8	378.6	520.2	1.54	-0.94	5.00
3,198.0	13.40	135.70	3,146.3	-362.0	383.8	527.5	2.01	-1.94	2.26
3,230.0	13.10	135.00	3,177.5	-367.2	389.0	534.8	1.06	-0.94	-2.19
3,262.0	13.10	133.90	3,208.6	-372.3	394.1	542.1	0.78	0.00	-3.44
3,294.0	13.50	131.50	3,239.8	-377.3	399.6	549.4	2.13	1.25	-7.50
3,326.0	13.20	131.50	3,270.9	-382.2	405.1	556.8	0.94	-0.94	0.00
3,358.0	12.43	129.30	3,302.1	-386.8	410.5	563.9	2.85	-2.41	-6.88
3,389.0	12.00	128.40	3,332.4	-390.9	415.6	570.4	1.52	-1.39	-2.90
3,421.0	11.50	130.40	3,363.7	-395.0	420.6	577.0	2.02	-1.56	6.25
3,453.0	11.30	128.70	3,395.1	-399.0	425.5	583.3	1.22	-0.63	-5.31
3,485.0	11.70	129.00	3,426.5	-403.0	430.5	589.6	1.26	1.25	0.94
3,517.0	12.20	128.80	3,457.8	-407.2	435.6	596.3	1.57	1.56	-0.63
3,548.0	12.40	130.60	3,488.0	-411.4	440.7	602.8	1.40	0.65	5.81
3,580.0	12.50	130.10	3,519.3	-415.9	446.0	609.7	0.46	0.31	-1.56
3,611.0	12.60	131.50	3,549.6	-420.3	451.1	616.5	1.03	0.32	4.52
3,642.0	12.83	131.57	3,579.8	-424.8	456.2	623.3	0.74	0.74	0.23
3,674.0	12.90	132.90	3,611.0	-429.6	461.4	630.4	0.95	0.22	4.16



Survey Report

**2**-4200

Company:

**NEWFIELD EXPLORATION** 

Project: Site:

USGS Myton SW (UT) SECTION 34 T8S, R16E

Well: Wellbore: E-2-9-16 Wellbore #1

Design:

Actual

Local Co-ordinate Reference:

Well E-2-9-16

TVD Reference: MD Reference:

E-2-9-16 @ 5624.0ft (Rig 2) E-2-9-16 @ 5624.0ft (Rig 2)

North Reference:

**Survey Calculation Method:** 

Database:

Minimum Curvature

EDM 2003.21 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
3,706.0	12.70	132.70	3,642.2	-434.4	466.7	637.5	0.64	-0.63	-0.63	
3,737.0 3,769.0 3,801.0 3,832.0 3,864.0	12.70 13.00 13.30 13.10 13.00	132.10 132.58 132.80 133.00 133.00	3,672.4 3,703.6 3,734.8 3,765.0 3,796.2	-439.0 -443.8 -448.7 -453.6 -458.5	471.7 476.9 482.3 487.5 492.8	644.3 651.4 658.7 665.8 673.0	0.43 1.00 0.95 0.66 0.31	0.00 0.94 0.94 -0.65 -0.31	-1.94 1.50 0.69 0.65 0.00	
3,896.0 3,927.0 3,959.0 3,992.0 4,023.0	12.60 12.50 12.10 11.80 12.10	131.00 128.90 130.30 130.60 129.90	3,827.4 3,857.6 3,888.9 3,921.2 3,951.5	-463.2 -467.6 -471.9 -476.3 -480.5	498.0 503.2 508.4 513.6 518.5	680.1 686.8 693.7 700.5 706.9	1.87 1.51 1.56 0.93 1.07	-1.25 -0.32 -1.25 -0.91 0.97	-6.25 -6.77 4.38 0.91 -2.26	
4,055.0 4,087.0 4,118.0 4,150.0 4,182.0	12.00 12.40 12.30 12.60 12.80	132.50 132.00 132.90 133.80 131.60	3,982.8 4,014.1 4,044.4 4,075.6 4,106.8	-484.9 -489.4 -493.9 -498.6 -503.4	523.6 528.6 533.5 538.5 543.7	713.6 720.3 727.0 733.9 740.9	1.72 1.29 0.70 1.12 1.64	-0.31 1.25 -0.32 0.94 0.63	8.13 -1.56 2.90 2.81 -6.88	
4,213.0 4,244.0 4,276.0 4,308.0 4,340.0	12.80 12.90 13.40 13.20 13.20	132.40 133.60 134.50 134.40 134.80	4,137.0 4,167.3 4,198.4 4,229.6 4,260.7	-508.0 -512.7 -517.8 -522.9 -528.1	548.8 553.8 559.0 564.3 569.5	747.8 754.7 761.9 769.3 776.6	0.57 0.92 1.69 0.63 0.29	0.00 0.32 1.56 -0.63 0.00	2.58 3.87 2.81 -0.31 1.25	
4,372.0 4,403.0 4,434.0 4,466.0 4,498.0	13.40 13.20 12.80 12.40 12.40	134.80 134.80 134.40 132.10 132.10	4,291.9 4,322.0 4,352.2 4,383.5 4,414.7	-533.2 -538.3 -543.2 -547.9 <b>(-</b>	574.7 579.8 584.7 589.8 594.9	783.9 791.1 798.0 805.0 811.9	0.63 0.65 1.32 2.00 0.00	0.63 -0.65 -1.29 -1.25 0.00	0.00 0.00 -1.29 -7.19 0.00	
4,529.0 4,562.0 4,593.0 4,625.0 4,657.0	12.13 12.10 11.40 11.30 11.10	132.10 132.60 131.20 131.80 132.00	4,445.0 4,477.3 4,507.6 4,539.0 4,570.4	-557.0 -561.6 -565.9 -570.0 -574.2	599.8 604.9 609.6 614.3 619.0	818.5 825.4 831.7 838.0 844.2	0.87 0.33 2.44 0.48 0.64	-0.87 -0.09 -2.26 -0.31 -0.63	0.00 1.52 -4.52 1.88 0.63	
4,688.0 4,720.0 4,751.0 4,783.0 4,815.0	10.70 10.40 10.50 11.20 11.20	134.00 133.70 132.60 131.70 132.70	4,600.8 4,632.3 4,662.8 4,694.2 4,725.6	-578.2 -582.2 -586.1 -590.1 -594.3	623.3 627.5 631.6 636.0 640.7	850.1 855.9 861.6 867.6 873.8	1.78 0.95 0.72 2.25 0.61	-1.29 -0.94 0.32 2.19 0.00	6.45 -0.94 -3.55 -2.81 3.13	
4,847.0 4,879.0 4,911.0 4,942.0 4,974.0	11.60 11.60 11.80 11.90 12.00	132.80 131.21 133.00 133.10 134.00	4,757.0 4,788.3 4,819.7 4,850.0 4,881.3	-598.6 -602.9 -607.2 -611.6 -616.2	645.3 650.1 654.9 659.5 664.3	880.1 886.6 893.1 899.4 906.0	1.25 1.00 1.30 0.33 0.66	1.25 0.00 0.63 0.32 0.31	0.31 -4.97 5.59 0.32 2.81	
5,006.0 5,037.0 5,069.0 5,101.0 5,132.0	12.30 12.40 12.70 13.00 13.00	132.90 130.90 131.50 130.50 129.00	4,912.6 4,942.9 4,974.1 5,005.3 5,035.5	-620.8 -625.2 -629.8 -634.5 -638.9	669.2 674.2 679.4 684.8 690.1	912.8 919.4 926.4 933.5 940.4	1.18 1.42 1.02 1.17 1.09	0.94 0.32 0.94 0.94 0.00	-3.44 -6.45 1.88 -3.13 -4.84	
5,164.0 5,196.0 5,228.0 5,259.0 5,290.0	12.70 12.20 12.10 12.10 11.82	127.90 130.20 129.24 129.70 132.30	5,066.7 5,097.9 5,129.2 5,159.5 5,189.9	-643.3 -647.7 -652.0 -656.1 -660.3	695.7 701.1 706.2 711.3 716.1	947.5 954.4 961.2 967.6 974.1	1.21 2.20 0.70 0.31 1.96	-0.94 -1.56 -0.31 0.00 -0.90	-3.44 7.19 -3.00 1.48 8.39	
 5,322.0 5,353.0 5,385.0	11.80 11.80 12.00	131.70 132.60 134.10	5,221.2 5,251.5 5,282.9	-664.7 -669.0 -673.5	721.0 725.7 730.5	980.6 987.0 993.5	0.39 0.59 1.15	-0.06 0.00 0.63	-1.88 2.90 4.69	



Survey Report



Company:

**NEWFIELD EXPLORATION** 

Project: Site:

USGS Myton SW (UT) SECTION 34 T8S, R16E

Well: Wellbore: E-2-9-16 Weilbore #1

Design:

Actual

Local Co-ordinate Reference:

**TVD Reference:** 

Well E-2-9-16

Minimum Curvature

E-2-9-16 @ 5624.0ft (Rig 2)

MD Reference:

E-2-9-16 @ 5624.0ft (Rig 2)

North Reference:

**Survey Calculation Method:** 

Database:

EDM 2003.21 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,417.0	11.90	133.00	5,314.2	-678.1	735.3	1,000.2	0.78	-0.31	-3.44
5,448.0	11.80	132.80	5,344.5	-682.4	739.9	1,006.5	0.35	-0.32	-0.65
5,480.0	11.90	135.10	5,375.8	-687.0	744.7	1,013.1	1.51	0.31	7.19
5,512.0	12.30	134.40	5,407.1	-691.7	749.4	1,019.8	1.33	1.25	-2.19
5,543.0	12.70	133.99	5,437.4	-696.4	754.2	1,026.5	1.32	1.29	-1.32
5,575.0	12.79	134.77	5,468.6	-701.3	759.3	1,033.6	0.61	0.28	2.44
5,607.0	13.20	135.90	5,499.8	-706.4	764.3	1,040.8	1.51	1.28	3.53
5,639.0	13.00	136.90	5,530.9	-711.7	769.3	1,048.0	0.94	-0.63	3.13
5,670.0	12.60	135.80	5,561.2	-716.6	774.1	1,054.8	1.51	-1.29	-3.55
5,702.0	12.00	133.40	5,592.4	-721.4	778.9	1,061.6	2.46	-1.88	-7.50
5,734.0	11.90	130.40	5,623.7	-725.8	783.9	1,068.3	1.97	-0.31	-9.38
5,766.0	11.90	129.10	5,655.0	-730.1	788.9	1,074.9	0.84	0.00	-4.06
5,797.0	11.40	127.40	5,685.4	-733.9	793.9	1,081.1	1.96	-1.61	-5.48
5,829.0	10.90	127.70	5,716.8	-737.7	798.8	1,087.3	1.57	-1.56	0.94
5,861.0	10.70	127.40	5,748.2	-741.4	803.5	1,093.2	0.65	-0.63	-0.94
5,892.0	10.40	130.50	5,778.7	-744.9	807.9	1,098.9	2.07	-0.97	10.00
5,924.0	10.80	129.90	5,810.2	-748.7	812.4	1,104.8	1.30	1.25	-1.88
5,956.0	11.10	125.10	5,841.6	-752.4	817.2	1,110.8	3.00	0.94	-15.00
5,988.0	11.70	125.40	5,872.9	-756.1	822.4	1,117.1	1.88	1.88	0.94
6,019.0	11.80	124.30	5,903.3	-759.7	827.6	1,123.4	0.79	0.32	-3.55
6,051.0	11.30	125.70	5,934.7	-763.4	832.8	1,129.7	1.79	-1.56	4.38
6,083.0	11.40	127.40	5,966.0	-767.1	837.9	1,136.0	1.09	0.31	5.31
6,114.0	12.00	127.70	5,996.4	-770.9	842.9	1,142.3	1.95	1.94	0.97
6,146.0	12.10	128.70	6,027.7	-775.1	848.1	1,148.9	0.72	0.31	3.13
6,178.0	12.35	128.45	6,059.0	-779.3	853.4	1,155.7	0.80	0.78	-0.78
6,209.0	12.70	127.80	6,089.2	-783.4	858.7	1,162.4	1.22	1.13	-2.10
6,241.0	12.50	128.70	6,120.4	-787.8	864.2	1,169.4	0.88	-0.63	2.81
6,273.0	12.61	129.39	6,151.7	-792.2	869.6	1,176.3	0.58	0.34	2.16
6,304.0	12.40	128.44	6,181.9	-796.4	874.8	1,183.0	0.95	-0.68	-3.06
6,336.0	11.94	128.72	6,213.2	-800.6	880.1	1,189.7	1.45	-1.44	0.88
6,368.0	11.27	129.92	6,244.6	-804.7	885.1	1,196.2	2.23	-2.09	3.75
6,399.0	10.59	130.29	6,275.0	-808.4	889.6	1,202.0	2.21	-2.19	1.19
6,451.0	10.59	130.29	6,326.1	-814.6	896.9	1,211.6	0.00	0.00	0.00

Design	Anno	tati	ons

	N	Measured	Vertical Local Coo		ordinates		
		Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
-		1,612.0	1,598.3	-137.4	123.2	Gyro to 1612' MD	

Checked By:	Approved By:		Date:	



Project: USGS Myton SW (UT) Site: SECTION 34 T8S, R16E

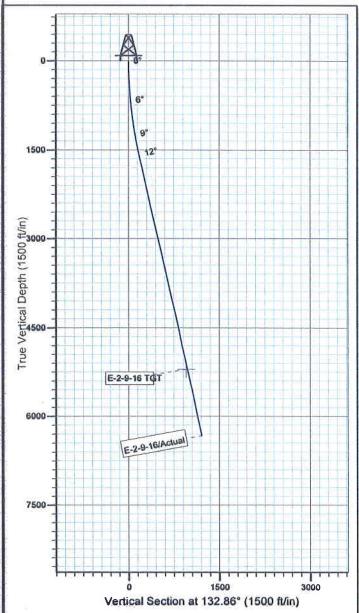
Well: E-2-9-16
Wellbore: Wellbore #1
SURVEY: Actual

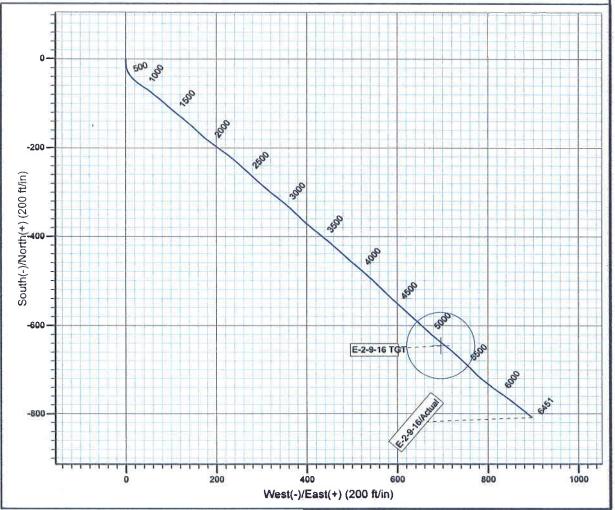
FINAL SURVEY REPORT



Azimuths to True North Magnetic North: 11.51°

Magnetic Field Strength: 52458.3snT Dip Angle: 65.85° Date: 2009/12/10 Model: IGRF200510







Design: Actual (E-2-9-16/Wellbore #1)

Created By: Sim hudson Date: 19:11, December 06 2010
THIS SURVEY IS CORRECT TO THE BEST OF MY
KNOWLEDGE AND IS SUPPORTED BY ACTUAL FIELD DATA.

#### **Daily Activity Report**

# Format For Sundry GRTR MB E-2-9-16 9/1/2010 To 1/30/2011

#### **GRTR MB E-2-9-16**

**Waiting on Cement** 

**Date:** 11/16/2010

Ross #29 at 310. Days Since Spud - 8 5/8" casing w/ 160 sks Class "G" + 2% CaCl2 + 0.25#/sk Cello Flake at 15.8 ppg w/ 1.17 yield. - casing (guide shoe, shoe jt, baffle plate, 6 jts) set @ 308.45' KB. On 11/17/10 BJ Services cemented - On 11/12/10 Ross Rig #29 spud GMB E-2-9-16, drilled 310' of 12 1/4" hole, and ran 7 jts 8 5/8" - Returned 6.5 bbls to pit.

Daily Cost: \$0

Cumulative Cost: \$28,932

**GRTR MB E-2-9-16** 

Rigging down

**Date:** 12/1/2010

NDSI #2 at 310. 0 Days Since Spud - RD to move to BRTR MB E-2-9-16

Daily Cost: \$0

**Cumulative Cost:** \$37,732

#### **GRTR MB E-2-9-16**

#### Drill 7 7/8" hole with fresh water

**Date:** 12/2/2010

NDSI #2 at 998. 1 Days Since Spud - Drill 7 7/8" hole F/ 268' to 998' W 15,000WOB, 151TRPM, 400GPM, 98fph ROP - Gap Sub, Antenna Sub, Pony Sub, 26 HWDP - P/U BHA as Follows, Hughes Q506F 7 7/8" PDC Bit, 6 1/2" Hunting 4/56.0st. 1.5° Mud Motor, Monel, - Test 8 5/8" Casing to 1,500PSI F/ 30min all tested good - Rig B&C QuickTest, Test Pipe and Blind Rams, Choke, Kelly, Safety Valve to 2,000PSI F/ 10min - MIRU on the Greater Boundary E-2-9-16 Set all Surface Equipment - Weld on Table Lock, Fix Kelly Spinners

Daily Cost: \$0

**Cumulative Cost:** \$63,817

#### **GRTR MB E-2-9-16**

#### Drill 7 7/8" hole with fresh water

Date: 12/3/2010

NDSI #2 at 3662. 2 Days Since Spud - Rig Service Function Test BOP, and Crown-O-Matic Grease Crown, Blocks, Swivel and Spinners - Drill 7 7/8" hole F/ 1792' to 3662' W/ 15,000WOB, 151TRPM, 400GPM, 107fph ROP - Drill 7 7/8" hole F/ 998' to 1792' W/ 15,000WOB, 151TRPM, 400GPM, 107fph ROP

Daily Cost: \$0

Cumulative Cost: \$89,440

#### **GRTR MB E-2-9-16**

#### Drill 7 7/8" hole with fresh water

**Date:** 12/4/2010

NDSI #2 at 5596. 3 Days Since Spud - Drill 7 7/8" hole F/ 4233' to 5596' W/ 15,000WOB, 151TRPM, 400GPM,96fph ROP - Drill 7 7/8" hole F/ 3662' to 4233' W/ 15,000WOB, 151TRPM, 400GPM,96fph ROP - Rig Service Function Test BOP, and Crown-O-Matic Grease Crown,Blocks, Swivel and Spinners

Daily Cost: \$0

**Cumulative Cost:** \$109,249

**GRTR MB E-2-9-16** 

Lay Down Drill Pipe/BHA

**Date:** 12/5/2010

NDSI #2 at 6451. 4 Days Since Spud - Drill 7 7/8" hole F/ 5596' to 6109' W/ 15,000WOB, 151TRPM, 400GPM,96fph ROP - Drill 7 7/8" hole F/ 6109' to 6451' W/ 15,000WOB, 151TRPM, 400GPM,96fph ROP - Rig Service Function Test BOP, and Crown-O-Matic Grease Crown,Blocks, Swivel and Spinners - Laydown Drillpipe - Laydown Drillpipe to 4,000' Spot 390bbls Brine - Pump Sweep and Circulate F/ Logs

Daily Cost: \$0

**Cumulative Cost:** \$192,994

#### **GRTR MB E-2-9-16**

**Wait on Completion** 

**Date:** 12/6/2010

NDSI #2 at 6451. 5 Days Since Spud - Pump 275sks PL11+3% KCL+5#CSE+0.5#CF+2#KOL+.5SMS+FP+SF Mixed @ 11ppg W/3.53yield - Pump 400sks 50:50:2+3%KCL+0.5%EC-1+.25#CF+.05#SF+.3SMS+FP-6L Mixed @ 14.4ppg - W/1.24yield Returned 33bbls cement to pit - Nipple down set slips W/ 98,000 Tension - Rig up BJ Hardlines and Circulate W/ Rig Pump - Rig up Marcus Liddell Casing Crew and Run 152jts 5 1/2" J-55 LTC 15.5# Casing set @ 6445.46 KB - Rig up B&C Quick test and pressure test 5 1/2" Casing Rams to 2,000PSI F/10min tested good - Rig up Loggers and Log Well (Loggers TD 6445) - Laydown Drillpipe and BHA - Clean Mud Tanks - Release Rig @ 12:00AM 12/6/10 Ryan Crum **Finalized** 

Daily Cost: \$0

Cumulative Cost: \$308,859

Pertinent Files: Go to File List